THE

PEDAGOGICAL SEMINARY.

Founded and Edited by G. STANLEY HALL.

VOL. V. JANUARY, 1898. No. 3.

EDITORIAL.

Certainty is one of the chief quests of science, one of the most fundamental needs of practical life, and the great theme of that department of philosophy commonly called the "Theory of Knowledge." It is generally studied either abstractly and subjectively or else experimentally. I do not know anywhere any serious attempt to treat the feeling for certainty genetically in children. Mr. Small's article thus opens essentially a new field, and, like so many other studies of children, besides its positive contribution in the way of theory, of co-ordinating the psychic operation of children and savages, must surely tend to bring epistemological discussion down from abstraction nearer to the actual facts of nascent consciousness. Modern epistemology, while often arrogating to itself the claim of being "science" in a pre-eminent sense, has contributed almost nothing save to intensify a more or less normal ephebic ferment, and to increase in individuals the voracious "appetite for boiled cobwebs" still occasionally found among our most gifted youth as it was in Theaetetus. Its theme is so practical and interesting, that it is unfortunate in many ways that the mode of treatment has been so scholastic and mediæval. Mr. Small's data, limited as they are, show the early interest and great moral import of the theme; and both the first part and the final part on oaths, which

Printed in Germany

also have never been thus studied, suggest new fields and themes for philosophic thought, or supply apt and characteristic cases (like, *e. g.*, the knife incident p. 333), and altogether open up a psychological theme toward a wider field of anthropology.

Mr. Kline connects truancy from school with the migratory instinct, shows an interesting relation to food, spending money, age, growth, etc. He has studied the problem and data of truant schools, the bodily development of truant children, shows the beginnings in the aimless instinct to follow anything moving, the strange attractiveness of water, the love of fields, of change, the blind impulse to go, the effect of optimum temperature and weather, of dullness, of home life, age and duration of the habit, etc., with suggestive charts and tables.

Dr. Gould (p. 421) describes a number of cases of child fetiches of remarkable interest, which, as he says, although allied with the doll instinct (PED. SEM., Vol. IV, p. 129), are, "in some respects, quite dissimilar."

Professor John Dewey contributes a valuable article criticising Mr. Phillips's paper on "Number and its Application Psychologically," in the last number of the PEDAGOGICAL SEMINARY, which, like everything from the author's pen, will command the most careful consideration of all interested. The editer regrets that the paper was received too late to be placed earlier in the present number and in large type.

Notes on nearly forty new publications conclude the present number.

METHODS OF MANIFESTING THE INSTINCT FOR CERTAINTY.

By M. H. SMALL, Fellow in Clark University.

PART I.

Certainty is a prime condition of living. It is at the root of all human confidence, the basis of all social compacts, the ground of justice, the aim of science, the end of every form of philosophical thought. No one can say just when, or where, or in what condition it begins. It seems to be one of the first instincts of conscious life. It may spring from the awakening of hereditary forces slumbering in protoplasm. It may come as a natural anesthetic for the pain that follows the first consciousness of an incomplete organism.

In the life of a child, the first few months, when compared with the psychic life of later periods, seem to be a stage of blank ignorance. Whether this interval bears the marks of the dream state, or has something of the nature of a long revery, or is actively conscious in a way that no one understands, it is full of sense impressions. Out of these, a little later, grows the impulse for naming things. The names are furnished by trusted friends and things do not change with respect to what they are called. This is the basis of the universal credulity of childhood.

While the naming is in progress, the properties of things are being slowly differentiated. One of the very first and one of the most striking of these is motion. The perception of this in objects awakens the idea of change in their spatial relations. Thus the whole economy of a child's life tends to enforce upon him the thought of the instability of his environment. The thought is painful, for in the identity of the relations of things is the assurance of his own orientation : it marks the transition from perfect trust in the testimony of others to personal inquiry as to what is true ; it is concerned with the border land between what has been believed to be real and what is vaguely glimpsed as possible. All this thinning of the psychic mist precedes the coming of what may be called the wonder stage of child development. In consequence of the concept of change in things as possible and of its natural concomitant, doubt, old forms of expression are modified. "Could it be?" "Do you suppose it is?" "Perhaps it is," or "It might be," are substituted for simple terms of direct assertion and are followed by specu-

lations based upon hypotheses contrary to the immediate conditions.

In the power to invent and work out these hypotheses, and in his ability to make voluntary changes in the places of objects, the child finds his escape from the thought of being swallowed up by the changes produced by natural law. In a degree it is the substitution of internal for external force, and with this idea, there comes a sense of control over conditions, which helps to a feeling of the identity of self. This might be sufficient to remove the pangs of unrest and leave in their stead a feeling of certainty that things must remain as they are placed, but for the fact that conflicting opinions are constantly arising over simple matters because the total knowledge and experience of any two persons usually leads to a different apperception of the conditions involved in any matter of doubt. Thus proof, a process or series of acts by means of which facts, forces, and things are made to submit themselves to such reduction as the individual mind deems sufficient to subordinate them to its own control, is made necessary.

This paper aims to present:

1. Some of the methods employed by children in settling doubtful questions.

2. Certain parallels to these methods, gathered from a wide, but fragmentary literature, of the customs of the race.

So far as possible, the following records are given in the words of the original writers, although greatly condensed. The classes which follow are practically in the order of their natural development.

I. The Stage of Wonder, Possibility, Doubt, and Hypothesis.

1. M., 22 months. Dod make baby? Dod make papa and mamma? Dod in Rich's house? Up in sky? Was told that God is too large to be seen. On going to bed a month later, refused to say "God bless baby." Gave as the reason, "Dod too big." 2. M., 3. "Mamma, can God see me?" "Yes." Looked out of the window. "Mamma, I can't see God and so God can't see me. You must be mistaken." 3. F., 3. Is there a Jesus up in heaven? Mamma says there is and that he takes care of every one. Do you think so? 4. F., 3. I took my little niece to the Catholic church to see the "Crib." She thought the sheep and the shepherds were alive and she asked many questions, showing that doubts were already in her mind. 5. F., 3 and 4. Their papa must cross a lake with a heavy team. M. "Poor papa will be drownded in the dark water, and then what shall we do?" O. (3.) "May be God will help him out." 6. F., 4. How will Jesus come? Will he have a pair of stairs? 7. M., 4. I wonder if God has forgotten to close the faucets up in heaven. I think he would n't let it rain so long if he had not. 8. F., 3. Mamma, are you sure there is a Santa Claus? Perhaps there is n't anyway. 9. M., 4. I ain't going to hang my stocking. Tom says there's no Santa Claus, and may be there ain't. I never saw him. 10. M., 6. "Do you say there ain't no Santa

Claus?" "Yes." "Then there ain't no God." 11. F., 3. Asked if she loved God. Replied, "I don't know that man. He isn't so nice as Dr.—— anyway." 12. F., 2 years 6 months. She had collected carnelians. One day she found a piece of lead pipe, examined it, and said to her mother, "No stone." "What are?" 13. F., 3. How can papa be in the picture, and in the grave, and up in heaven at the same time? 14. F., 4. Uncle told her that he once had a little girl about her size, but that she was in heaven now. After a moment, she said: "My grandma died, too, but she didn't go to heaven. They just put her in the ground." 15. M., 2. "Who is that man?" "Why that is my father." "Mamie, how?" 16. F., 3. I wonder when that rocking-horse eats. 17. F., 3. If I had wings, could I fly up and see God? 18. M., 4. If I were to go to the top of that mountain, could I reach and touch heaven? 19. F., 7. Could I reach heaven if I went up in a balloon? 20. M., 4. There was a crash of thunder. "What's that? Where did it come from?" asked W. He was told that it came from heaven, and he explained it by saying, "May be it is God playing on his piano." 21. M., 4. Heard thunder. Said, "May be they are firing torpedoes up there." 22. F., 3. I wonder if the stars are gold. 23. M., 4. Cried. Asked why, said, "The moon is looking at me, p'r'aps God is in the moon and I'm afraid." 25. M., 5. Saw moon through tree-tops. Told father he could get it with a long ladder. 26. F., 4. Auntie, tell me about the day before there was n't any day. 27. F., 5. One night while repeating the Lord's Prayer, wondered what "forever and ever" meant. Mother compared it to an endless day. The child tried for days to get a concept of endless things, and at last decided that such a thing was not possible and mother did not know. 28. F., 5. Heard teacher say the earth is round like a ball, and that if one starts from a given point and keeps on without change of direction, he will return to the starting point. She did not believe it, for she said one would fall from the side as from a ball. 29. M., 4. Father drank. "If my papa don't be a better man, may be a comet will come and take him." 30. F., 4. Interested in picture of a mermaid. One day when walking near river, heard a noise. Explained it by saying: "May be it is that girl fish." 31. F., 5. Heard bullfrog. Thought it a cow. Was told that the sound was not like the voice of a cow. Answered, "But this may be a cow laughing." 32. M., 4. Asked by mother what made his head so dirty, replied, "I guess it is some of the dirt God had left when he made me." 33. F., 4. If If they have button hooks in heaven, I guess I don't want to go there. It takes all the time to put on my shoes. 34. F., 4. Papa, do squirrels die like other folks? 35. M., 5. I told him that George Washington never told a lie. He looked up and said, "Um! May be he did and may be he didn't never tell a lie." 36. F., 4. Told about Santa Claus. Said, "Mamma, that is a play story." 37. F., 3. Asked to see the finger bowls. Was told that they had been eaten. Indignantly asked another, "Were the finger bowls eaten?" Seemed fearful that the statement would be corroborated. 38. M., 5. Previously had perfect faith in Brownies. At this age asked, "Mabel, are there really and truly real Brownies?" 39. F., 5. When papa sometimes said things like, "I enjoy a dish of fried snowballs in winter," she would look up in a doubting way and say, "He said fried snowballs, he did." 40. F., 5. "I don't t'ink it is true." "You don't think what is true, Mary?" "Well, Mina said she read when little birds go to Africa and it gets cold, worms go right into their mouths. Mary guesses it is a joke." 41. M., 4. Dreamed that a savage dog bit him. Awoke screaming. Was pacified with difficulty. Next day

protested that his fingers were bitten off, although they were before him. 42. F., 5. "Mamma says so but she does n't always tell the truth." Later the mother told a fact and the child remarked, "That may be, but you have fooled me before." 43. M., 6. I wonder why people blow a fire to make it burn, and a match to make it go out. 44. M., 6. "What makes the wind? Why God puts his mouth to the sky and blows his breath down on us." Then he explained that God has a mouth big enough to reach across the sky, and illustrated the making of wind by expelling his breath. I could not convince him that he was wrong.

Four hundred and fifteen cases like the preceding have been studied. 299 of these picture the children face to face with possibilities and hesitating which way to decide. In many cases there is little evidence of a positive opinion. In the greater number a blind groping after certainty is apparent. Simple explanations easily suffice. 116 cases illustrate speculations about what would follow "if" existing conditions were to be changed.

Perhaps it is but natural for the first questions of perplexity to be asked about God. Common objects are seen and then named. God is an oft repeated name for which no object appears, and this difference becomes a cause of anxiety. In records like 6, 17, 20, 21, 22, 30, 31, 32, and 33, the idea of association is very marked. 4, 6, and 23, although showing none of the lines drawn by Straton and the Stoics, reveal the hylozoistic impulse of childhood. 2, 6, 20, 23, 30, 31, 34, and 44 present the anthropomorphic element. 13 and 14 hint at the importance to childhood of a place-relation for things and show that the impossibility of the same thing existing in two places at the same time is glimpsed at an early age. The idea of a paradox appears in 43, and the struggle after the limits of time, in 26 and 27. The questionable practice of awakening doubt through jokes based on statements contrary to the natural relations of things is illustrated in 36, 37, 39, 40, and 42.

According to popular judgment, children have but little ability to reason. It is erroneously thought that broad knowledge is requisite for such an act. A close examination of these records and of the excellent ones of the Worcester Normal[1] has brought a strong conviction that the steps taken by the child in making judgments differ only in degree from those of the mature philosopher. Child and man struggle after finalities and the aim of both is to substitute stability for flux, and psychic rest for a feeling of unrestrained change. All the examples furnish some proof that the child has a conception of substance, quantity, quality, activity, passivity, and place relations.

[1] H. W. Brown: Thoughts and Reasonings of Children. PEDAGOGICAL SEMINARY, II, p. 358. "Child Observations at the Worcester Normal School."

These were all categories of Aristotle. Moreover there is abundant evidence in the records, of the use of discursive reason and also of the principle of intuitive reason, to which philosophers fall back for the certainty of that which is undemonstrable. It may be granted that the child uses no formal syllogism; that he is unacquainted with the method of apagogic inference; that he is ignorant of the basis of the dilemma, and never heard of the process of Fermat; yet he has rough categories; he knows a little about cause and effect; he has something of the series idea, as Phillips has shown;[1] and he has a keen eye for resemblances. This is sufficiently apparent in the records, which also show the results (1) of inference without noting premises; (2) of inference from simple consequence (the illative method of Descartes); and (3) inference from analogy. If children repeat the history of the race, it must be to profit as the race has profited by reducing some of the results of experience to form. If the process be not reasoning, then the race has not reasoned; if the end of it be not philosophy, the word has lost its generic force and become a toy for the dialectician and the dreamer.

II. Empirical Proof.

1. By Touching.

1. F., 1 year 6 months. Given a toy cat. Felt it. Went at once to the family cat and felt its fur as though comparing the two. 2. M., 3 years 6 months. Stung by a bee. Said "Fly burned me with foot." Told that fly had no fire on foot, replied, "Put your finger on one and see if it ain't hot." 3. F., 4. Told not to touch hot stove, put finger on it and drew back saying, "burn." 4. F., 4. Looked for some time at dog lying in the yard. Stooped. Felt of his paws. Left him, saying, "Cause they're rubber." 5. M., 5. If you don't believe my hands are cold, feel and see. 6. M., 5. Asked if a piece of ice were glass, touched it, saying, "No it is ice. It is cold." 7. M., 5. Brother had some candy in the form of a marble. He did not believe that it was candy and said, "Let me take it and see." 8. F., 5. Was told not to touch bumble bees. One alighted on a flower. She wished to see whether it would really sting. She never touched another. 9. M., 6. I told him that I had a real animal around my neck, meaning a fur boa. He took hold of it and said, "It ain't an animal, for I can squeeze it and it does not move."

Perhaps touch is the very earliest of the senses to function. It is doubtful, however, if it is used for giving proof so frequently as some of the other senses. It is so instinctive and so subjective that it comes into action almost without thought. As a means for satisfying one's self of the correctness of certain judgments about a thing, it is doubtless an ultimate test.[2] In

[1] Pedagogical Seminary, Vol. V, pp. 28–32.
[2] Dresslar: *American Journal of Psychology*, Vol. VI, p. 320.

the returns which form the basis of this study, there are 78 records of proof by touching. The group of three years containing the largest number of records is 4–6 with 48. The maximal year is the fourth with 20.

2. By Smelling.

1. M., 2. Had been given oranges. One day saw a small pumpkin. Cried for it. It was given him. He smelled it and threw it away. 2. M., 2 years 6 months. Gave me a bottle. Asked me to remove stopper. I told him it was not nice. His reply was, "Yes, smell." 3. M., 4. Wrapped an orange in a paper. Gave to aunt. Asked her to tell what it was. She attempted to smell it. He would not let her, because he thought she could easily tell in that manner. 4. M., 5. Given flowers. Was asked if they were real. Replied, "I think they are." Smelled them. Said, "I know they are, for they have a flowery smell." 5. F. H. Got a ring in a prize bag. Aunt called it pretty. Child said, "It is only brass. Smell of it." 6. M., 8. Came from school with a bottle of black liquid. Was asked where he got that ink. Said, "It is licorice water. Smell and see." 7. M., 10. Would say that a coat, glove, or cane belonged to a certain person and give proof by smelling of it. The same was true of S at 4 and 5. His likes and dislikes were often based on the sense of smell.

Fifty-six cases of proof by sense of smell have been examined. The maximal three years are 4–6, including 31 records. The maximal year is the fifth with twelve. Though commonplace, like nearly all the records of empirical proof, these are not without meaning.

3. By Hearing.

1. F., 3. Was told that blackbirds would come and take her if she was bad. At every noise afterward, would say, "Don't you hear the blackbirds coming? Listen." 2. M., 4. Brother shouted up from bottom of deep well that he could hear the roosters crowing in China. Child listened for a long time, believing it true. 3. M., 5. Had picked up a kitten. Was told that it was a dog. Replied, "No, it's a kitty. She sings rr-rr." 4. M., 6. I have a new harmonica. Hear it? I have some new boots. Hear them squeak? He always shows what each new thing will do. 5. F., 9. Had a cocoon. Said, "Listen, there is something in this." Then she shook the cocoon.

Proof by hearing is perhaps employed least frequently of the sense methods. Possibly it is less critically observed than the others. The total number of cases is 53. The maximal group, 4–6, has 38 of these; the fifth year, 20.

4. By Tasting.

1. M., 2 years 6 months. Saw a bottle of Jamaica ginger on table. Asked if it was tea. Mother told him that it was not and that it would burn him. He took a big swallow to be sure that it was not tea. 2. M., 3 and 5. Found some potash on a beam in the woodshed. "It is candy," said R. Both tasted and burned their lips badly. 3. F., 4. Told that too much of the jelly cake which she was eating would make her sick. Said, "Just taste, mamma, and see if it ain't good on the out-

side." 4. F., 5. Wanted some catsup. Was told that it would burn her tongue. Answered, "Let me taste and see if it will." 5. F., 5. Gave me an apple. Said it was sweet. I did not believe it. She told me to taste and find out if I thought she was not telling the truth.

"Taste-and-see" occurs more often than either "hear," "smell," or "feel," and naturally, perhaps, from the instinct to live. In the matters under dispute in the 125 records of this class, tasting outranks every other kind of evidence. It is the final step. The third year has 20 records; the fourth, 24; the fifth, 27.

5. By Experimenting, Showing, and Testing by the Muscular Sense.

1. M., 3. Given a glass mug. Told not to drop it because it would break. Immediately threw it upon the floor to find out. 2. M., 3. "Give me a cent." "I haven't one." "Let me look in your pocket-book." 3. M., 4. Wished to put a weight on a board. Was told that the board would not support it. Immediately tested the board with his own weight. 4. F., 4. They were playing together. A passer remarked that they looked like twins. One said, "I ain't twins. See I ain't." The other remarked, "That man is a liar." 5. F., 4. "Polly will bite." "O no," replied the lady addressed. "Touch her then," said the child. 6. F., 5. Had a toy balloon. Mother told her if it came near anything sharp, it would burst. As soon as the child was alone, she stuck a pin into it to see. 7. M., 6. Was asked what he supposed was inside the head of my China doll. Immediately began to pound its head in order to learn. 8. F., 5. "Ain't I a pretty girl, Ada?" "Come to the looking-glass and see." 9. M., 7. Charged with running over freshly seeded lawn. Father was about to whip him. Protested his innocence. Finally said, "Papa, put my shoes into the tracks and see if they fit." 10. F., 7. Found digging a deep hole in the garden. Asked why, replied that her teacher said China was right underneath us, on the other side of the world and she wanted to see the smoke. 11. M. 8. Had stain on lips. Tobacco was suggested. Boy dropped his head. Put hand into his pocket. Drew out a paper box. Turned his back on boys. Opened box cautiously to arouse curiosity. Said, "Grasshoppers in there." The box contained black licorice. Put a piece into his mouth. Smiled and went on. He gave complete proof almost without a word. 21. M., 11. Told to be careful of some knives with celluloid handles, as they would burn. Soon after one was found with a burned handle. Boy had tried to see if knife handles could be inflammable.

This class has 135 records. The maximal group is 3–5. 59 records are included in it. The fourth year has the largest number of records, 22. The effect of suggestion on child curiosity is very well illustrated in this group. Records like 1, 6, 7, and 12, point strongly against negative teaching. Every step by exclusion balances the prohibited thing against the world and brings it into the very focus of attention. If it is a thing that appeals to the motor impulses of the one who receives the injunction, unless an age when inhibition is fairly easy has been attained, it is quite likely to be done at the first

opportunity, as the result of a process almost as certain as the logic of necessity.

III. Authority and Testimony.

1. Echoing or Quoting Others.

1. F., 3. Liked to play on Sunday. One day after church, she put her doll away saying, "The minister says Jesus is sorry when we play Sunday, and I am not going to play any more." 2. M., 4. Afraid of the dark. Said there were bears in the dark always, for Charlie said so. 3. M., 4. Was asked shape of earth. Replied, "Some folks say it is round;" but his tone and manner showed that he did not believe it. 4. M., 4. There's a ghost in Mr. R's house. I heard him say so. 5. F., 4 years 6 months. Her mother doubted her statement. She said, "Mamma, R says so, and A says his teacher says it is true. I don't care if it is not. What good will it do me?" 6. F., 4. Was naughty. Mother told her she must ask God to forgive her. Answered, "Why, I did, and God said, 'Great Scot, Elsie, lots of little girls in Portland say heaps worser things than you.'" 7. F., 5. Wanted her doll baptized. Was told she could not have it done. "The priest said I might," was the reply. 8. F., 6. "Women have one more rib than men. Folks say so. They told me that God took a rib out of Adam to make one for Eve, and all men have one less now." 9. M., 6. A. "Your cat will die some day. Cats don't live long," E. "My cat will go to heaven when it dies, because it is a good cat." A. "Cats don't go to heaven." Long and heated debate. E. (finally) "Cats do go to heaven, for my mother said everything with eyes goes to heaven or to the bad place." 10. Boys and Girls about 7. A girl. "The world is coming to an end pretty soon." Boys. "No it ain't. The preacher said Sunday that nobody knows when it will come to an end." The Children were on the playground. 11. M., 7. "Sadie, papa belongs to the devil." "What makes you say that?" "Mamma says that if anybody swears they belong to the devil." 12. F., 11. I said that the verb "is" could have an object. A girl laughed at me. I thought I was right, and I could have sent her home. I said I could show it in the grammar. I got very mad and went out of doors. When I got the grammar, I found that I was wrong.

This division illustrates the method of throwing the burden of proof upon authority. It is the next step beyond belief in the names of things. It represents credulity focussed into forms of expression. The child testifies not to what he personally knows, but to his belief in the truth of what some one has said. The ground of this belief is a habit of believing, which was formed from necessity during the first years of life. The habit strengthened because experience proved that the statements of friends were made with good intent, and were found reliable more frequently than false. There are 299 records of proof by echoing or quoting others. The maximal group of three years is 4–6. In the fourth year are 79 cases; the fifth, 72; and the sixth, 46. "Mother" is cited 104 times; "father," 56; "teacher," 46; "they say" occurs 26 times, and the minister, priest, grandparents, and other family friends are mentioned fewer times. There

is but little quoting of print. Only 17 cases were described. These are about equally divided between the Bible, the newspaper, and the story book. The "book of health," the arithmetic, and the grammar are also mentioned.

2. *Calling Witnesses.*

1. M., 3. A sunflower is black in the middle and white all round, and goes to sleep at night. Doesn't it mamma? 2. F., 3. "Papa said I might go to ride with him." Her mamma did not believe her. The child at once brought her father for a witness. 3. M., 4. Described a performing bear. Listeners laughed. He turned to his uncle and said with strong feeling, "You tell them, uncle Frank, and then they will believe it." 4. M., 5. Went to walk in the field with his father. On his return, tried to tell what he had seen. Kept saying after his statements, "It was so, wasn't it papa?" 5. F., 6. My brother told me that the cat would get my tongue if I sang before breakfast. I always stopped and asked mamma if the cat really would get it. 5. M., 6. Accused of lying. Stood erect with clenched hands and said, "Ask Charlie, then." 7. F., 7. Had been in a fight. Was telling about it to her mother. After every detail, turned to a little playmate saying, "Did n't she Grace?" "Wasn't it so?"

Dogmatic statements are not altogether a new thing in the world. When a child on trial uses them, they are not likely to present anything very novel. For this reason, examples from the 387 records of this group will not be multiplied. The third year has 24; the fourth, 55; the fifth, 79; the sixth, 54; the seventh, 49; the eighth, 32; above the eighth are 94. Playmates are called to testify 116 times; mother is called, 92; sister, 36; father, 29. Whatever the starting point from which proof by reference to authority and by direct testimony develops; whether it is the result of the example of older people, or of a primitive feeling that truth is essential to community life and that all must bear witness to it when there is need, sufficient evidence has been presented to show that testimony is one of the earliest methods employed by children in establishing the ground of certainty. They appreciate the value of disinterestedness and the strength that lies in numbers.

IV. Sacrifice and Self-Immolation.

1. *Wagering.*

1. F., 4. Mother kept her in the house after a rain, fearing that she might run into the water. Explained reason. Child said she would not go into the water. Mother still feared. Child said. "Mamma, you may break my doll if I go into the water." 2. M., 4. Mother questioned a statement. Boy replied, "If it is not true I'll give you my whip." 3. M., 5. I can ride your bicycle. Just let me try. If I can't, I will give you my engine and cars. 4. F., 6. Brother told her there was no Santa Claus. She answered, "There is one, and I will give you all the money in my bank if he does not bring me something." 5. M., 6. Wanted to play near the brook. Mother feared he might fall in. Told her that if he went near the brook, she might

kill his dog. 6. M., 7. I will bet my stars (school rewards) that I can throw higher than you can. 7. F., 8. Promised to go chestnutting. Children did not believe he was in earnest. He said, "If I don't go, you may have my dog to keep for ever and ever." 8. M., 7. Had the habitual phrase, "I'll bet ten dollars." I told him that it was wrong to bet. Soon after I heard him saying to his brother, "I'll bet you ten dollars that it is wicked to bet."

The records of wagering mark a stage of positive advance toward psychic independence. While doubts were yet answered by testimony, the child learned that people often speak in jest, and that the moral attitude of a person at the moment of speaking is of great importance in judging the truth of statements. He learned also that there are some things in view of which people are always sincere. These perceptions are tacitly formulated into the germ of an oath. A child is willing to bind himself by any obligation that he would require from another. Having bound himself, he talks seriously, unless he adds the mutually understood negative "like fun."

The feeling that sacrifice is a test of sincerity buds early. Children shrink intuitively from the thought of pain and privation. Whenever they are willing to suffer either for an opinion of a doubtful matter, according to the traditions of childhood, it is conclusive proof that they are sincere and know what they are saying. As the records show, the first form of sacrifice consists in offering some valued personal possession as a forfeit or wager to go to the other party, should the statement on account of which it was offered, be proved false. It is not the gambling instinct, although children love chance. There is strong evidence that, in cases like those studied in this section, probabilities are never counted, and that the naming of a possible forfeit indicates a feeling on the part of the child of the absolute certainty of his position. In no case of experimentation has the writer been able to induce a child to offer to "give" anything where conditions were unfavorable to him.

The returns yielded 364 cases of wagering. The maximum three years, 5–7, 173. The sixth year leads with 67. 28 per cent. of the whole number are imitations of stock betting phrases of adults. The younger children say "I'll give you," or "I'll let you have," whatever is to be the pledge. The older ones say, "I'll bet." Of the habitual expressions, some mentioned money in sums impossible to children. Some made wagers of life by shooting or drowning. One girl offered to give her baby brother (dearly loved) to vindicate her word. There were 15 election bets.

Toys and playthings were frequently offered. Dolls lead with 15 per cent. Knives and wagons have 8 per cent. each. Other things that were often named were: bicycles, tricycles, velocipedes, engines, skates, slings, sleds, bean-shooters, doll-car-

riages, doll-cradles, tops, marbles, baseballs, rocking-horses, and whips, "new dolls that can move their eyes," drums, soldiers and Christmas games.

Next in frequency are the pets. The children offer to give their ponies, cats, kittens, hens, dogs, lambs and rabbits. Sometimes the pet is given to be killed. Sometimes other children are to have it. A little Scotch lassie used to say, "Mither, I'll gie ma wee doggie awa' if it isna true."

After pets come hats, caps, coats, boots, shoes, and shirts. Things of æsthetic and practical value are given. With one, it is his "bright, new gold dollar;" with another, a treasured eagle ($10). Some offer their picture books, Bibles, colored pencils, gold bracelets, new necklaces and breastpins. A boy ventures his Sunday suit; another his first derby hat. Girls offer to give their new dresses, "red waists," gayest-colored hats, and gloves. These are all named seriously when a dispute is pending and, in case of erroneous judgment, the forfeit of playthings is often made to the victor. It then becomes not merely a pledge for truth, but an emblem of humiliation and inferiority.

Besides the lists of things wagered, as they are named in the foregoing paragraphs, nearly all being things that are of value to children, 135 careful observers have given the results of their observation concerning the esteem of children for what they wager. 4 say that "children wager things to which they are indifferent;" 18, "things to which they attach little value;" 113, "they give things which they highly prize." The degree of certainty and the intensity of interest in the disputed point are determining factors in the question of the value of the forfeit.

2. *Ordeals and Penances.*

In every one of the records that follow, the painful act or struggle is undergone: (1) in proof of a statement of ability to do some physical feat; (2) to accomplish a task under hard conditions; (3) to get accurate sense impressions; (4) to make correct inferences. The themes for doubt are simple matters, like walking, riding, running, skating, promotion at school, preparation of lessons, ability in jumping, shooting, getting base hits, getting around promptly with appointments; the size of fish caught, snakes killed, and animals seen; the best places for obtaining marbles and other playthings; details about accidents; the real facts about men who eat glass; pets, the best places to find nuts, the ownership of childish property, and very many other things of which these are fair types. The facts given are generic; therefore it will be possible to avoid pages of detail in reporting the cases, and to record very little

more than the forms of the ordeals and penances suggested in them.

1. F., 5. If Willie did not slap my face because I would n't let him swing me, I 'll kill Tabby and eat her. 2. F., 6. I 'll drink water so hot it will burn my tongue. 3. F., 6. I'll swallow my dinner whole. 4. F., 6. Ate a worm with apparent relish, to prove a statement. 5. M., 6. I 'll dip my head in kerosene and wash my face in dish water. 6. M., 4. If Frank did not come, I will go up stairs in the dark. 7. M., 8. I 'll swallow a snake if there were not three organ grinders at our house this morning. 8. M., 8. I 'll eat my shirt without washing. 9. F., 8. If Frank is n't coming, I 'll eat two toads. 10. M., 8. I 'll eat a stone if I did n't see them. 11. M., 12. If I'm lying I 'll kiss your naked body, 12. M., 10. If McKinley ain't elected I 'll saw wood. 13. F., 6. If the world don't come to an end in three days you may hit me five times. 14. F., 5. If I killed the rabbit you may tie my tongue to my chin. 15. F., 6. If you prove it I don't care how hard you whip me. 16. M., 6. You may put me down and walk over me if it is not so. 17. M., 8. If I am wrong you may lick me in any way you like. 18. Adult. As a child often went into a room alone, pinched and slapped herself and pulled her own hair for an error. 19. M., 9. If he did not come I 'll stay away from the ball game this afternoon. 20. M., 4. If I 'm late you may give my lunch to Nero. 21. F., 5. If I don't keep my promise I won't eat any plum pudding for dinner. 22. M., 6. I 'll go without strawberries for supper. 23. M., 7. If I don't have every word I 'll shut myself into a room all day Saturday. 24. F., 8. You may keep me in at recess every day for a year. 25. F., 6. You may give me bread and water every day for a week if it is n't so. 26. F., 6. I 'll bite my fingers until they bleed. 27. M., 8. I 'll lay down and pound my head until my teeth drop out. 28. M., I 'll go to grass and eat clover.

Others mentioned eating plants, toadstools, crickets, flies, rats, crows, glass, lamp chimneys, ten-penny nails, live frogs; swallowing buttons, marbles, rings; chewing rags, hats, shoestrings, insects, tacks, and wires; drinking vinegar, kerosene, castor oil, and hot water.

There are records of actual fasting for a day. In such cases, preparation is made for the fast by eating as much as possible on the day before it is to begin. Going to bed early, sitting up, or staying out all night, hiding in a closet, crawling into a hole, hiding head in the sand, going down a dark street alone at night, running around a block, climbing stairs 200 times, sitting in a chair for hours without speaking, sitting under the trees all day, are often mentioned.

There is also a giving over of dolls, balls, rings, and other playthings and valuables in the case of false statements.

Various pleasures are given up. The children described stay away from picnics, drives, boating, swimming parties, games and amusements of many kinds.

Soaking the head in a barrel of water, actually jumping into a pond or river, sitting on a tack, sticking pins into the flesh, giving others permission to call mean names, and declaring willingness to "be anything," which means about the same as being called names, are not uncommon.

Of the ordeals of children 290 records have been classified. The number in the maximal three years is respectively, sixth, 38; seventh, 59; eighth, 65. 35 per cent. are ordeals of eating and drinking; 10 per cent., of fasting or giving up things

especially liked; 10 per cent., of solitude, inhibited activity, and sleeplessness; 9 per cent., of giving up particular pleasures; 15 per cent., of motor effort; and 21 per cent., of physical pain and mutilation.

There is no doubt about the spreading of these curious practices through the imitation of one child by another, but how do they come into existence? Is there anything in the practices of adults from which they could be derived by direct imitation? Does the organized life of the school offer material for them or merely awaken an impulse to invent them? Probably some of them are caught from hints dropped by older people in their conversations about the olden time. Fairy stories and elf lore are at the root of others. "Eating clover" is perhaps, an application of the old superstition that the stomach of any one who ate it would turn over five times.[1] Sitting without speaking, forfeiting recess, giving up pleasure excursions, and eating bread and water, like 23, 24, 25, and some of the more condensed forms which follow, seem like adaptations of forms of correction employed in the school and in the home; but, with the exception of the "fool's cap" and the "dunce's block," one looks vainly for traces of these in the old school ordeals like standing before the school with outstretched arms, holding a stick of wood at arm's length, sitting on the floor with feet elevated, bending over to hold the finger on a nail, raising the eyes and holding the chin to a line on the wall, driving a wedge between the teeth, propping the mouth wide open, and putting a ball or a kind of spring trap into the mouth, some of which have not entirely passed away. After all the sources which help to explain the origin of these ordeals have been examined, many of the forms receive no illumination, and it seems as though they must be spontaneous in the child. Is there not an expression of something instinctive in the large per cent. of penalties aimed at the nutritive system? It seems as though there is a dim consciousness among children that nutrition is the first law of life, and that while answering the demands of the stomach normally may be pleasant, if the process cause gagging, retching, or any other disagreeable sensation, it may become disgusting; therefore, when one is willing to submit to tests like 3, 4, 7, 8, 9, 28, and those which follow, it is strong proof that he is both honest and sincerely in earnest. Yet there are reasons why the eating of crickets, worms, and plants, may be one of the milder tests to children, provided that the thing eaten be not unpleasantly sour, bitter, or alkaline. The cause of the fear in all these forms of eating is the physiological suffering which is expected to follow; but to cause nausea and

[1] Vernaleken: In the Land of Marvels, p. 105.

vomiting, reflex antiperistaltic action is necessary, and this is due more to the thoughts suggested by sight and smell than to taste itself. But these elements are not analyzed by children; therefore they may not suffer so intensely in such acts as adults would.

If it is true that many of these ordeals and penances spring up spontaneously, there must be a parallel for them in the steps taken by the race to gain control over environment. The best field for tracing such a parallel is that of law and ethics. Even a brief investigation shows a strong resemblance between the efforts of children and those of men to advance toward something definite and final. Differences also appear. Among the most striking of these, one must note the fact that in the practices of children, as they are judged from these records, there is no indication whatever of recourse to chance or divination, which marks primitive methods of securing justice among men. Burmese litigants once sat at an altar and rested their case on the burning of candles.[1] He won whose candle lasted longest. The ordeal of the lot was similar. The Bornese poured lime-juice on two shellfish.[2] The first contraction meant defeat for the party represented by the more sensitive mollusk. Natives of Assam formerly exposed one charged with a crime. If after two or three days in the jungle, no tiger had come to devour him he was adjudged innocent.[3] Some African tribes make one whose veracity and innocence are in doubt swim a creek in which sacred "Haie" are feeding.[4] At Myra in Lycia, the man from whose hand a sacred fish refused to take food, was esteemed guilty of whatever charge had been made against him. On the Gold Coast a needle is thrust through the tongue of those suspected of theft.[5] If it fails to penetrate, the suspect is in league with evil spirits and he is punished. Other tribes decide the fate of supposed malefactors by lines drawn on the skull of a chimpanzee.[6] White lines bring freedom; black, condemn. Still other tribes have ordeals which owe their force to suggestion, in a higher degree than those already named. In one locality a defendant is compelled to offer his hand to the bite of a deadly snake. The fangs of the snake are secretly removed. A priest takes it in charge. If the victim is not bitten, he is innocent; so also if sickness does not follow a bite.[7]

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[1] Lond. Jour. Folk Lore: 1884, p. 89.
[2] Ency. Britanica: Ordeals.
[3] Ford: Liv. Age, Vol. LIII, p. 255.
[4] Post: Afrikanische Jurisprudenz, p. 125.
[5] Ellis: Tshi-Speaking Peoples of the Gold Coast, p. 201.
[6] Lea: Superstition and Force, p. 222.
[7] Post: Op. Cit., p. 124.

So far the practices named have been those of peoples far removed from the centers of English and American law and culture. But even in those centers through the Middle Ages and down almost to the present century, people were juggling with the "Bible and key,"[1] the "sieve and shears,"[2] weighing naked witches against the Bible, a process called the "ordeal of the balance,"[3] and expecting the wounds of murdered men to bleed again in the presence of the murderer,[4] with the same credulity and superstitious awe that kept Arabian miscreants from bathing in the Dusares,[5] perjurers of Tyana from drinking the waters of the Asbamaean lake,[6] and the dweller in the Syrian desert from swearing falsely on the river of death. The feeling does not differ in kind from that which made the African fear dropsy and madness after drinking water in which a charm had been soaked,[7] the Indian expect sickness if he testified falsely after drinking the ashes of an oath-parchment,[8] and the Israelite, a reddened beard from drinking the waters of the ashes of the golden calf.[9] This whole spirit is foreign to the ordeals of childhood. They are matter of fact and true to the realism of the early years of life.

Another striking fact is that the child has nothing that resembles the ordeal of fire. But this has been widely used by men. In India, this test with its accompanying baths, applications of the peepul, jend leaves, and dharba grass for the hands; its bandages of silk; its invocation to the fire god to reveal the truth on the flesh, and the final grasping of the iron, so hot that when carried seven steps and dropped in the center of the innermost of seven concentric circles, it would still burn the grass, was one of the sternest for moderate offences. According to the Sacred Laws,[10] for certain crimes of violence, the outlaw must smear himself with clarified butter and embrace an iron image heated red hot. The Bedouin licks hot iron. The tribes of Africa also use the fire ordeal. In the days of Athelstan proof of innocence was complete when one carried three pounds of hot iron the legally prescribed distance without being burned, and later, both in England and in Germany, one must walk blindfolded and barefoot over plowshares placed unequal dis-

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[1] Chambers Journal: Vol. LXIII, p. 363.
[2] Tyler: Prim. Cult., Vol. I, p. 128.
[3] Dyer: Church Lore Gleanings.
[4] Brand: Popular Antiquities, Vol. III, p. 229.
[5] Smith: Religion of the Semites, p. 164.
[6] Smith: Op. Cit.
[7] Ellis: Op. Cit., p. 197.
[8] Vincent: In the Land of the White Elephant, p. 11.
[9] Exodus XXXII, 20.
[10] Müller: Books of the East, Vol. II, p. 104.

tances apart.[1] If, in addition to these illustrations, it be recalled that Sophocles and Tacitus do not forget this form of the "*judicium dei;*" that Daniel writes of the fiery furnace; that the works of classic authors of every age contain many references to trials by fire; and that people still talk of going "through fire and water" to attain a purpose, the great influence of the fire idea on the psychic life of the world becomes more apparent, and the fact that children do not give it any expression grows into a matter for wonderment.

The ordeals of children generally seem to partake more of the nature of an honest wager of battle than of tortures from which only supernatural intervention could save them. In their disputing face to face with appropriate action and changing stress, one can easily see a miniature of the dramatic movement, the stereotyped challenge and answer, and the awful earnestness with which men once stepped into the adjacent squares before sober judges to vindicate their claims in combat.[2] The early records of Bohemia, Servia, Poland, Pomerania, Moravia, Russia, and Silesia, show that this custom was widely diffused before Celt or Teuton took it up or Charlemagne had pronounced it "superior to faithless oaths."[3] The 37 stories about the "wager of battle," told by Saxo Grammaticus,[4] show how common it was in Danish law.

When a boy carries home a victorious playmate on his back, or permits himself to be called names after having received proof of a personal error, his attitude is an acknowledgment of a subjection as complete as that of the military ordeal of passing under crossed spears, or submitting to the "ordeal of sods."[5] "Running around the block" recalls a clause in old English law; viz.: "Any one whistling after daylight is closed, shall walk thrice around the house" by way of penance.[6] This was merely a municipal statute, and as such, it suggests the curfew now rung in so many cities at nine o'clock to take children from the streets.

The records of eating and drinking described on page 324, have a counterpart in the eating of "bread and salt" common among wandering tribes; of "bread and cheese," known from Alexandria to England; of dry rice, once widely practiced East and West; of a paper bolus previously cursed and supposed to bring perpetual unrest to the guilty;[7] of the

[1] Blackstone: Commentaries, Vol. IV, p. 368.
[2] Blackstone: Vol. IV, p. 347.
[3] Lea: Superstition and Force, p. 108.
[4] Elton and Powell's Ed., XXXVIII.
[5] Du Chaillu: The Viking Age, Vol. I, p. 558.
[6] Grose: The Provincial Glossary.
[7] Chambers Journal, LXIII, p. 363.

sacrament, terrible to the giver of uncertain evidence from the imprecation, "May this morsel be my last if I lie;" and, finally, of anything given by another, or partaken of while sitting with others at a common table. The last named custom was a survival in changed form of the killing of an animal, or the drinking of blood. It made a bond of unity.[1] The Arab regarded it an inviolable compact of brotherhood, and the thought, "there is salt between us," took away all suspicion against a fellow man.[2]

Of a different type from the ordeals of drinking noted on page 324, were the ordeals of poison. "What will you drink on your statement?" was a fearful question. In India, Siam,[3] and Loango,[4] a person on trial fasted for twelve hours, ate a quantity of dry rice, then drank the "red water," an emetic poison. The tanghena cherry,[5] stramonium, euphorbia, aconite, arsenic, and sulphuric acid are some of the many subtances that have been used in this manner.[6]

In Western Africa the "magical leaves" and their curse, decided questions of domestic infidelity, and the Hebrew wife drank of the "water of jealousy."[7] Sometimes, instead of this, the suspected one must plunge the arm into melted lead, or boiling oil, or water, to remove a ring or a pebble from the bottom of the vessel containing it. An uninjured arm was a proof of innocence. In the song of Gudrun,[8] this test is described. After an oath on the "white holy stone" she came to the cauldron and

> "Dipped to the bottom her white hand
> And took up the costly stones"

saying:

> "Look now, men; I am guiltless,
> According to the holy custom.
> See how the cauldron boils."

Then her accuser, the lying Herkja, is made to submit to the same ordeal and

> "The man saw not a pitiful sight
> Who beheld not how the hands of Herkja
> Were scalded there."

This practice is not accidental. It has a record of long use

[1] Gen. XXVIII, 30; XXXI, 54. Also, Remaines of Judaisme and Gentilisme, Aubrey. (Edited by Britten.)
[2] Smith: Religion of the Semites, p. 252.
[3] Lea: Op. Cit., p. 222.
[4] Post: Op. Cit., p. 126.
[5] Lea: Op. Cit., p. 224, quoting from Ellis's Polynesian Researches.
[6] Oswald: The Open Court, Vol. XI, p. 150.
[7] Numbers V, 17–28.
[8] Du Chaillu: The Viking Age, p. 561.

in Bithynia, England, Germany, Russia, Sardinia, Scandinavia, and among many African tribes.

Record 2, page 324, has a parallel in India where the Brahmin who persistently drinks the liquor of rice must drink one bumper boiling hot.[1]

Ten per cent. of the records (see page 324) are ordeals of fasting. They cannot fail to suggest the great importance that has always been attached to seasons of fasting in the initiatory rites of savage tribes, in the life of the church, and in the history of the growth of religion. They recall the Lenten season, the Pentecostal vigils, the Ninevite fast, that of the Nativity, the old time Fast-day of the Puritans, the long fasts of Christ,[2] David,[3] Elijah,[4] and Moses,[5] and many other days of abstinence and self-denial. They renew the memories of the Sacred Law which tells how the king deals with the evil minded, and how Yama punishes those who offend secretly.

The children have penances of solitude, wakefulness, and sitting still. Every one can be duplicated in the Books of the East.[6] Children offer a sacrifice of toys for their errors; the Buddhist gave pieces of sacred fuel or oblations of himself. Children jump into the water to give assurance of seriousness; the primitive Aryan believed it a pure element which could not receive anything unclean. The feeling that perjurers, witches, and all who were allied with spirits of evil would float if cast into the water, took a deep root and during many generations it was a common thing to see wretches bound hand to foot and thrown into some pool or stream to be declared blameless only in the event of sinking.

Records like 14, 15, 16, 18, 26, and 27 (page 324) are numerous. Is there not here a miniature of the days of torture, flagellation, monkish self-abnegation, horse hair shirts, iron belts, chain mail, and sackcloth and ashes? Do they not remind one of the victim who once laughed in the ecstasy of religious frenzy while being voluntarily trampled into the dust? of sacrifice of teeth, noses, ears, and jaws, among various savage tribes? of the parting with fingers and toes among the Dakotas, Mandans, Fijians,[7] and the sons of Judah[8] to denote submission? Is there not in the offer of a child to sacrifice a hand or a foot something related to the practice of severing the hands of thieves in Egypt and Japan? Whatever the spring from which all these customs of children flow, they are strikingly

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[1] Müller: Sacred Law, Vol. II, p. 105.
[2] Mat. IV., 2. [3] 2 Sam. XII, 16. [4] 1 Kings XIX, 8. [5] Ex. XXIV.
[6] Müller: Books of the East; Sacred Law. See pp. 107, 112, 297, and 321.
[7] Spencer: Prins. Sociology, Vol. II, pp. 56, 657.
[8] Judges I, 6-7.

analogous to those of the race. If any one should choose to ascribe them to humor, the search for novelty, or pure imitation, he will do well to remember that the most serious and lofty standards of civilized life are an evolution by steps like these, and that there must have been at some time, a beginning point in instinct.

V. Asseveration.

1. E., 6. Used to say "Honest, truly, black and bluely; lay me down and cut me in twoly. All's square now, ain't it?" 2. F., 7. Used to say "Honest and truly," "as sure as I stand on this spot," or "as sure as I stand here." Girls always believed her when she said these. 3. F., –. Was afraid of the expression "hope to die." Used it one day. Felt that a calamity was imminent for a long time after. 4. F., –. Used to say "hope to die," but never except when lying, and always feared death after saying it. 5. F., 6. Used to say, "It's as sure as the sun rises." 6. F., 6. It is as sure as preaching; I would say it if I were to die next minute. 7. F., 8–13. Used to say, "Honor bright," "Honest and true," "Sure as my name is F," "sure as Fate," and "I would say it to the Queen of England." 8. M., 14. In our school (6 grades) we sometimes say "honest," or "honest and true." If that is not enough, "Honest and true, black and blue; Lay me down and cut me in two." We sometimes say "Cross my heart," and sometimes make a cross on our throats with the forefinger. 9. F., Adult. All the children I ever knew, felt afraid to say "I hope to die." Once in our school the children held a meeting and voted never to say it from fear of consequences. 10. M., 15. You can nearly always believe anybody when he says these (asseverations), but once in a while you find a tough that don't care what he says.

Other phrases used for the same purpose are: really and truly, I truly know it, sure, surely, as sure as Columbus discovered America, I would say it with my latest breath, I would say it to my mother, my father, the president, the governor; I would say it if I were to be turned into a wolf, if the earth were to open and swallow me, if God strikes me dead when I get down to pray, if the house were to fall on me, if the sun never sets again, if water were to run up hill, if the world goes up, if you were to cut my head off; I would say it to the angels, I would say it in church, if you struck me stone dead, deaf and dumb and blind; if I were to choke, hang, be sick; may I never stir again, may I be burned, paralyzed, damned this minute.

Some are similes drawn from facts or traditions of the faith: It's as sure as God made Adam, the world, green apples; as sure as there is a God in heaven; as true as heaven; as I hope to live in Paradise. Others are simple affirmations or dogmatic statements: It is all wool, straight goods, honest, candid truth, honest fact, as true as anything; as true as true can be; honest, true, red, white, and blue.

A few show that the speaker is conscious of staking his reputation: I pledge my word of honor on it; it is so or I'm a sinner; if it is so I am a liar. Others recognize the power of disinterestedness: You need not believe me unless you wish; I don't ask you to believe it but it is so; it is true whether you believe it or not; what good will it ever do me anyway? I would say just the same if you were not here.

The following are based on a likeness to some accepted fact of science or history: As true as that the earth is round; record 5, as sure as that two and two make four; as sure as that Moses was born, or that I

have a heart. Some rest on a fact apparent at the moment of speaking: Record 2, as sure as you stand there, as I have ten fingers and ten toes, as I look into your eyes, as that I have had my dinner, as that I know I live, as there are stars, as water is wet, the stove is black, vinegar is sour; as that I can carry the coal hod full; as "shore as I'm pore."

These contain an idea of sameness and difference: As sure as eggs are not potatoes; as that molasses is molasses, vinegar is vinegar, black is black, gold is gold; as that your name is not Jack Robinson; as that Sunday does not come in the middle of the week.

The 3,310 cases in this section may be roughly grouped and summarized as follows:

1. Forms of Dogmatic Affirmation, 264; (a) "It is so," etc., 248; (b) "I know it," 16.

2. Forms containing a Plea, Protest, or Reiteration, 1,238; (a) "Honest, true," etc., 565; (b) "Truly, honestly, surely," etc., 288; (c) "Honest and true, black and blue," and variations of the ryhme, 385.

3. Forms resting on General Belief, 204; (a) "As true as preaching," 110; (b) As true as God, the Gospel, the Bible, 94.

4. Forms depending on Filial Love and Reverence for their Seriousness, like "I 'd say it to my father, mother, the minister, the priest," 83.

5. Forms based on something Apparent at the moment of Speaking, 822; (a) "As sure as you live, I live, you are born, I am born," etc., 594; (b) "As sure as I stand or sit here," etc., 228.

6. Forms based on respect for High Station, as "I would say it to the king, queen, governor, president; or to Washington, Columbus, Adam, and Moses," 94.

7. Forms Indicating a Readiness to face Death, like "I hope to die," "be struck dead," etc., 350.

8. Miscellaneous, 255.

In these eight groups, the period of three years which furnished the greatest number of records, is respectively: 1, 6-8; 2, 6-8; 3, 6-8; 4, 7-9; 5, 7-9; 6, 8-10; 7, 6-8; 8, not averaged. The year in each group that gives the maximum number is: 1, 2, 3, the seventh; 4, 5, 7, the eight; 6, the tenth.

Throughout the study much more is suggested than can be expressed in so brief a discussion. The figures adduced are offered as illustrative, merely, and readers are expected to estimate them for what they will yield to each as an individual.

VI. Ceremonies.

1. Crossing the Heart, Throat, Tongue, and Fingers.

1. F., 6. "I am going to speak at the entertainment." "O you're not." "I am. See?" She was crossing her throat. 2. F., 5.

Promised to keep a secret. Crossed her fingers on the Bible. 3. F., 7. Breathed across fingers and then made a cross over heart. 4. F., 8. When I told my playmates anything and said, "I 'll cross my heart," as I began to make the cross, all stood in a circle and raised their eyes toward heaven. 5. F., 10. My friends make crosses over their hearts. I cross my lips. I feel then as though my lips are sealed. 7. F., Adult. As a child I used to think that if I said, cross my heart and then told what was false, a man would come and cut my heart where I made the cross. 8. F., 7. I have something awful to tell you if you will cross your tongue not to tell. The child addressed crossed her tongue. 9. F., 8. At this age my friends and I shook hands as a pledge of secrecy; and for truth, we crossed our hearts, throats and breath. We sometimes placed our hands in the attitude of prayer and said, "As I hope to live in Paradise." 10. F., 10. Described a doll. Friends doubted her statement of its size. She said solemnly, "I'll cross my heart and spit over my little finger." 11. F., 8. Crossing the throat was to me a symbol of the true cross. 12. F., 8. With her friends used to kneel on one knee and place both hands on heart. 13. F., Adult. I often hear children saying, "My finger 's wet; My finger 's dry; Cross my heart, and hope to die." At "wet," the finger is wet in the mouth; at "dry," it is raised in the air. 14. M., Adult. We used to blow across our fingers for truth. Children have changed the form now, for I hear them saying, "Is my finger wet? Is my finger dry? I cross my heart, I will not lie." 15. M., Adult. I have seen persons cross the heart, pull out hairs, and beg to be believed. 16. M., 4. (To tin soldiers.) "Will you promise?" Dip your finger in this blood (red ink) and do this way (making sign of Trinity) and say, 'Three in one.'"

17. Children playing in a yard.

John. "Where 's my knife, Mary?"

Mary. "Dn 'ow."

John. "You know you have taken it."

Mary. "I have n't got your old knife."

John. "Then you have lost it."

Mary. "I have not had your old knife. So there!"

John. "Honor bright?"

Mary. "Honor bright."

John. "Cross your heart?"

Mary. "Cross my heart."

John. "Cross your heart and hope to die?"

Mary. "Cross my heart and hope to die."

John. "Crook your little finger and hope the worms may eat you if you are telling a lie?"

Mary is silent.

John. (Very slowly and impressively.) "Crook your little finger and hope the worms may eat you if you are telling a lie?"

Mary left the company. She seemed very angry. Presently she returned, threw the knife at her brother and started away. The children called after, "Oh! you said honor bright, and cross my heart." They did not play with her again for a week.

18. M., Adult. It seems that there are positive and negative phrases that go with the crossing ceremonies. To cross "honest and true," is always serious. To do it "like fun," or "over the left," takes away the danger that is supposed to follow inexact statement. 19. Other acts described are: crooking the finger and hoping it may never come straight, holding the thumbs vertically, making a cross with the fingers and kissing them, and reciting jingles like, "May all my teeth drop out if I tell what this 's about," and "I will never, never tell; if I do, I 'll go to hell."

The ceremonies involving crossing contain two distinct ideas: (a) an imitation of the cross, which all have been taught to regard sacred; (b) an act symbolical of decapitation. It is easy to to see how strong an appeal either idea must make to the natural mysticism of childhood. Records 4, 5, 6, 9, and 17 show something of the depth of the feeling out of which all these forms of expression flow. Perhaps, like all things which are deep and vital, it falls without the possibilities of verbal description. Of the two classes named above, the former with its stories of suffering and sacrifice, its lessons of gentleness, its depths of love, its interest in the happiness and greatness of childhood, and withal, its vagueness because it is so unlike anything in a child's experience, sets fancy free and awakens in the young minds to which it comes, a flood of tenderness which is ever the most imperative of the forces, reacting in the direction of truth. The second class has a root exactly opposite in its nature. It springs out of the instinct that dreads the bogie, butz, elf, ghost, Nyck, and makes the flesh creep at the thought of brigands, pirates, and avenging spirits with their accompaniment of awful weapons, severed heads, and gory bodies. Thus again love and fear are side by side and hand in hand, in furthering the cause of truth.

Record 10 introduces the idea of magic. Spitting as a charm is of great antiquity. In India saliva from the mouth, according to the sacred writings, was always pure, and was much used in lustration. Brand gives many examples of the custom.[1] The Greeks were in the habit of spitting into the bosom whenever they met a madman or an epileptic. In an age much nearer our own, the lustration of children with saliva on the *dies nominalis* was considered as necessary to their welfare as was a favorable position of the heavenly bodies at the natal hour in another age. Pliny notes the efficacy of the practice against witchcraft. Perhaps the custom frequent among players upon the diamond and the gridiron, of spitting on their hands or their gloves after a fumble, has a family tree with longer branches than is usually supposed.

13 gives a form of reasoning without expressing the premises. This will appear more fully in a later section.

Crooking the finger and the elbow may symbolize the idea of squareness. The second of the forms may be merely a serious imitation of what some one has lightly said when asking a candidate to raise his hand in taking an oath.

15 is a solitary case. The offering of hair once had great significance, both as an elf-charm and as a religious ceremony. It was a rite among the Greeks at the entrance to manhood. It

[1] Popular Antiquities, Vol. III, 259–263.

formed a part of the offerings on pilgrimages to Jerusalem. The Australian used to pull hairs from the head of a departed friend. Following the same custom, the Peruvians plucked out eyelashes, and offered them to the sun, the rivers and the hills. The case cited is probably an imitation of an idea borrowed from reading old traditions like these.

2. *Trade Rhymes and Pledges.*

1. F., Adult. When five, and weakening after a trade, if told that her act was "like being an Indian," always held to the bargain.

2. F., 8. With her companions used to say when trading,

"King, king, give a thing
Never take it back again."

3. F., 10. My mates used to sing when making a promise,

"First to the East, then to the West,
Who 'll take this promise and keep it the best ?"

They used to turn as they sang.

4. F., Adult. To close a trade the children near my home (Salt Lake City) use an odd ceremony.

First Child. "Red leather ?"
Second Child. "Trade forever."

This is said with the little fingers interlocked and each child must see that the other does not stick out his tongue. In some parts of Connecticut and Pennsylvania, both parties to the trade say the one word "leather" to ratify a compact.

5. M., 8. Several boys in one school. They trade, then shake hands. After this one asks, "What goes up the chimney ?" The other answers, "smoke." Next both say together, "Bargain 's never broke."

6. M., Adult. When I was 10 to 12, a common formula in trading knives was:

"Whole handle, whole blade,
Whole backspring, or no trade."

7. Two variations of the preceding in other States indicate additional precautions. The form,

"Trade, sight unseen ?"
"No handle. No gamble.
Whole blade or no trade,"

insured safety in the trade "without seeing." The following:

"Whole handle. No gamble.
Whole blade or no trade.
Sight and seen,"

fixed the fact that the property had been examined.

8. Sometimes there is a reminder that a trade may be disastrous.

"Trade ?" "Trade forever."
"Lick lack, never take it back."

The last is said by both parties.

9. Sometimes a "sharper" takes an option.

"I am the key; you are the lock;
I can trade back, but you cannot."

10. A reminder that both parties have used the necessary formulas:

"Trade ?" "Trade." "Double trade,
Never trade back again."

11. "What 's your shoes made of ?" "Leather."
"Then the bargain's done forever."

12. "What 's the fox got ?" "A bushy tail."
"The bargain then will never fail."

13. "What do you trade it for?" "For the eyetooth of a wolf."
14. An iron clad formula:
"As bell shall ring, and candle burn,
From bargain made, I'll never turn."
15. A pledge of secrecy when boys are carrying away booty around a new house or elsewhere:
"What is this?" "It's a brick."
"To your promise always stick."
16. F., 11. Two girls of this age put all their solemn agreements in writing, sign them, and put a drop of blood after their names.
17. F., Adult. I know two girls of 11 who entered into a "partnership." They wrote two pledges and sealed them with a vow never to open them until after the death of one. The survivor was to burn her own pledge and open that of her "partner." They agreed to divide their possessions and to stand np for each other. Ten years later they opened the pledges together.

202 persons report having used these rhymes and pledges. Only 2, 4, 6, 7, 11, and 15 are general. 13 is common among Russian boys and suggests the court oath of the Ostyak. In many of the forms there is a veiled concept of a category. Take 11, 12, 14, and 15. In plain speech they are equivalent to: You know this fact. It will always endure. The brick will always be a brick. The material of your shoes will be leather as long as shoes are shoes. The tail of the fox will always be bushy. The bell was made to ring; the candle to burn. The conditions of our trade are as clear and as express as these facts; therefore you ought to cling to the compact as a natural law of human relations, until facts like those named shall change their nature.

Record 16 tenses the muscles at the roots of the hair like the solemn oath of Huck Finn and Tom Sawyer of which it is a duplicate. But all through the ages the marvellous power of blood, which seems to be felt by the children named in this record, has been recognized. The importance of the idea and its relation to the family, the State and the church is nicely shown in the works of Smith[1] and Trumbull.[2]

The only parallel to the foregoing rhymes which the writer could obtain from literature appears in the works of Gregor.[3]

One form used by Scotch lads is:

"Ring, ring the pottle bell,
Gin ye break the bargain,
Ye'll gang t' hell,"

And another:

"Will ye braek the bargain?" "No." "Swear than:"
"As sure's death;
Cut my breath.

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[1] W. Robertson Smith: Religion of the Semites.
[2] H. C. Trumbull: The Blood Covenant. The Threshold Covenant.
[3] Folk Lore in the Northeast of Scotland, pp. 22–3.

Ten mile aneth the earth,
Fite man, black man
Burn me t' death."

There is a suggestion of the same simplicity in some old forms of bequest published in the papers of the London Folk Lore Society.[1] One is a pedigree grant from Athelstan to the Roddam family:

"And for a certain truth,
I bite this wax with my gang tooth.
So long as muir bears moss and cnout grows hair,
A Roddam, a Roddam forever mair."

Another is a seal upon a grant from William the Conqueror to the "Norman Hunter:"

"To witness that this is such,
I bite the white wax with my tooth
Before, Jugge, Mawd, Margery, and my yongest sonne Henry."

3. *The Oath among Children.*

1. F., 8. When I said, "Hope to die," I raised my hand at the same time. This made it very solemn and impressive. 2. M., 10. Trading marbles with another boy. After trade. "Hold up your right hand." Second boy. "What for?" First boy. "My father says they do it down at court when a feller is talking to keep him from telling a lie." The second boy said "Oh!" and raised his hand. 4. F., 5. Put Bible on the floor and put her foot upon it when doubted by her teacher, saying, "Now, teacher, don't you believe me?" 5. M., 10. Stole tobacco. Denied with the expression, "Hones' to God, I kin swar an' kiss a thousand Bibles." 6. F., 12. I read a speech in my history which began: "In the presence of this vast assembly. I do solemnly declare and affirm." For a long time after I used this on every possible occasion. 7. F., 14. At this age I swore with uplifted hand alone and in a dark room, that I would do certain disagreeable duties that many girls leave to their mothers. 8. F., Adult. When sixteen, I took the oath of a Good Templar. I kept it for years, but broke it in maturer life as I would discard old clothes.

In the natural course of things, the oath does not appeal to early childhood. It comes with the awakening of larger ideas and obligations. For this reason, there are fewer records of its use than appear in the other groups of ceremonial forms. The total number of cases classified in VI, is 1,218. The distribution is:

Crossing throat, heart, lips, and breath, 424; Shaking hands, crooking fingers, elbows, and taking a formal oath, 328; Trade rhymes and pledges, 202; Miscellaneous, like 19, p. 333, 354.

Interest in these symbolic acts, excepting the oath, seems to be most intense from about the seventh to the tenth year. Is this a natural period for the development of symbolism?

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[1] Denham Tracts, Vol. I, 253.

VII. The Formal Oath Among Men.

When we pass from the use of the oath by children to look for its origin in the race, we merely transfer the problem to the childhood of long ago. It has lost none of its difficulties. It has gained little new light. It is still a problem of instinct. The very first man who ever bound himself by an oath, could not analyze his act, for it resulted from the compulsion of feeling. Now, after the lapse of ages, truth makes it necessary to say that we know scarcely more of the nature of the instinct and the act. The meaning of the names of the ceremony—oath, curse, swearing—cannot be accurately traced. If the verb swear, which conveys the idea of a person responding, be derived from the Sanscrit *svar*—voice, or sound—swearing is still only a lifting up of the voice in response to something indefinite. In the haze into which such a quest as this precipitates one, and in which everything seems disproportionate and grotesque, whether it is deemed better to follow the thought of Spencer or that of Tyler, concerning the awakening in men's minds of the concept of a spiritual presence animating all things, it is necessary to recognize a feeling of intimate relationship between primitive man and the unseen πνεύματα which seemed to him to fill stick and stone, sun and star, dewdrop and fountain. That some of the objects thus vitalized should come nearer than others to their human companions, was but natural, and every mention of any of these at the time of making a compact, both increased the feeling of their reality and became a confession of the inability of men to separate themselves from their environment. Within it, and inseparable from it, the individual found his only feelings of unity, of homeness and rest. In strange conditions, new manifestations of life brought the idea of stranger spirits, changed identity, and loss of selfhood. According to this view, whether taken by a man independently, or because required in the experimental stages of a social metamorphosis, an oath would be as reverent as a prayer; as lofty as a hymn of praise.

After the stages of magic and ordeal, already noticed in IV, 2, under various names, the formal oath spread widely through the institutions of both Church and State. It binds the presidents of republics and all officers holding positions in the legislative, executive, and judicial departments of the State, to allegiance to the constitution and the laws. It also binds them, as it does the most trivial officers in a municipality, to the faithful performance of their duty. According to a writer in Chambers Journal,[1] English officials are just as thoroughly sworn as are our own. They must swear not to talk about the Queen's business, not to be tempted by bribes, and not to give advice to

[1] Vol. XLVI, p. 36.

any one out of the regnant party. The hog reeve swears to take up all straggling pigs; the policeman to "keep an eye on all suspicious characters within ten miles of the palace;" the bailiff that he will keep the jury in private and "without meat, drink, or firing while they are sitting for a verdict." The Councillor of the Exchequer, with his three oaths in the name of God, the Saints and the holy Evangelists, is the most sworn man of all.

The term oath includes all that is meant by the various forms of obligation employed by religious and fraternal organizations. The church covenant of membership, the baptismal vow, the marriage ceremony, even among the Friends; the Christian Endeavor pledge, the curse, vows like that of Jacob,[1] Jephtha,[2] and those of crusaders and pilgrims in former days, are all expressions in different degrees of the same generic idea.

One of the special functions of the Church used to be the restraining of errings by pronouncing curses upon them. For the purpose of comparing it with other forms of oath that are to follow, a summary of the points of a cursing rubric of 1669 is subjoined. On days especially devoted to the purpose, the people came together and heard the sentence:

"God and the haly kirk curses all: That brakes franchise of the haly kirk; that gifs nought to God; that interferes with the freedom of the haly kirk; that makes unlawful gain; that draws blood by violence; that makes agayne the pece of the king; that robbes; that bears false witness agaynst matrimony; that gives less than due honors; that puts unlawfully to purgation; that lays hand on prest or clerke in malice; that counterfeits the kinges seal; that despises the sacrament (heretics) . . . these are the poynts of the great cursinge that our haly faders, bischofs, and erchbischofs has ordained."[3]

The most formal and the most dreaded of ecclesiastical curses was that of the anathema or sentence of excommunication. When men departed from the tenets of their faith and could not be recalled, not only were sister churches warned against them, as to-day when members of the clergy are found in council to be guilty of misconduct, but public officers and private citizens were not allowed to permit them to approach within a prescribed distance, and the clergy were not permitted to attend their funerals. The ceremony was very impressive. Sometimes, as in the case of Spinoza, the room was darkened and the burning tapers were inverted at the moment when the awful sentence was spoken. Usually it drew to a close with the scriptural formula,[4] ἤτω ἀνάθεμα, and the spiritual dignitaries who felt themselves empowered to pronounce such a judgment,

[1] Gen. XXVII, 20.
[2] Judges XI, 30-35.
[3] Grose: Antiquities, Vol. III, p. 370.
[4] I Cor. XVI, 22.

capped the climax of foreboding for the outcast and stilled the fraternal whisperings of their own hearts with the final μαραν ἄθα.

The specific terrors of the curse for the people of every age and clime are clearly shown in both sacred and secular literature. Adam must walk through a desert, see nothing but thorns and thistles in return for toil, and feel that the future had only perpetual sorrow in store.[1] Similar was the curse upon Cain.[2] In the event of breaking their covenant, the Israelites[3] were to have ague, consumption, sorrow of heart, hostile rulers, brass for sustenance, and iron for a bed of rest. Their cattle were to be stricken with plague. Their temples and sanctuaries were to fall. Their cities were to lie in the dust, and before death could bring relief, famine was to compel them to eat the flesh of their children. The curse of Dido upon the Trojan, foreshadowed in the Aeneid, Book IV, ll, 381–87, and fully expressed in ll. 607–629 duplicates the last form in almost every particular. Gudrun's curse against the perjured Atli[4] and that of Sigrun against her brother Dag, who had killed Helgi in violation of an oath, are of a similar nature. Du Chaillu's translation of the latter is:

"Thee shall all oaths harm
Which thou to Helgi hast sworn
At the bright waters of Leipts.
And at the rain cold rocks of the sea.
The ship shall not move
Which should carry thee,
Though a fair wind to thy wish
Blows on it.
The horse shall not run
Which is to run with thee,
Though thou hast to escape from thy foes.
The sword shall not bite
Which thou drawest,
Except when it sings
About thine own head.
Then were the death of Helgi avenged
If thou wert an outlaw,
Out in the forest, lacking property
And all enjoyments,
And hadst not food
Unless thou tearest corpses."

The same dread calamities and woes of unrest noticed in these forms, appear in the imprecation upon Hadding.[5] Amyntor cursing his son,[6] and Althaea,[7] beating the earth with her hands and invoking the powers of heaven and hell, are types

[1] 1 Gen. III, 17-20. [2] Gen., IV, 11-12. [3] Levit., XXVI, 16.
[4] Du Chaillu: The Viking Age, Vol. I, p. 555. (From Atlakvida, 30.)
[5] Saxo Grammaticus: Ed. of Elton and Powell, p. 36.
[6] Iliad, Bk. IX, 532. [7] Iliad, Bk. IX, 660.

of denunciatory expression among the Greeks. A peculiar English form is referred to by Grose[1] in giving a legend of "Arthur's Oon," one of the Roman monuments of Britain. It was destroyed by the owner of the land on which it stood, and "all cursed him by 'bell, book, and candle.'"

The craving for imprecation in formal oaths of another age is very striking in the ludicrous betrothal oath of Sir Edward Broughton to Mary Wilkes, 1660:

"I Edward Broughton doe here, in the presence of the great God of Heaven and Earth, who knoweth the secrets of all our hearts and the sincerity of mine at this time, upon premeditation and not rashly, invoke the God of Spirits to pour down his vengeance upon me and my posterity forever, not in ordinary manner, but in the highest nature, giving the devill power over our souls and bodies, that we may consume on earth . . . . and I may never walk upon the earth but with hideous shapes about me and a terryfyd conscience; and that I may not dye, but as Cain, have a mark set on me that men may shun me; and that I may outlive my posterity and that they may all be extinct and all damned; and that the devill may have a good title to me and carry me away alive; and that I may never appear before God but to receive the dreadful sentence, Depart from me ye cursed into everlasting fire to be at home with the devill and his angells:

If I do not utterly forbear all rash swearing and all drinking; if I ever find fault with anything that my wife shall doe or say; if I undertake any business without the consent of Mary Wilkes that is to be Mary Broughton; or if I should violate any request of hers; or if there should happen any difference between us (as with my first wife); Then, if I am the cause, let these and all the plagues that God can invent, be poured out on me like rain on thirsty ground. And I doe this heartily and voluntarily and with serious consideration and premeditation and now sign it with my own hand and seal it with my own seal."[2]

The forms that have been used in legal practice, although slightly monotonous, when carefully compared, are very interesting both as records of progressive steps in law and as conservers of the philosophical ideas of the past. According to Justinian,[3] "Jurare est deum in testem vocare et est actus divini cultus." The manner of taking the oath in the Roman court is thus described: "Lapidem silicem tenebant juraturi per Jovem, haec verba discentes; si sciens fallo, tum me Diespiter salva urbe arceque ejiciat, ut ego hunc lapidem." At the last words the flint was dropped. In our own time the oath is regarded as a tacit recognition of powers without man and superior to him, yet closely related to him and capable of changing his pleasure into pain. Certain precautions in administering it have always been carefully observed by the guardians of the law. It is given in a formal manner; it is administered by persons especially authorized to do it; it must

[1] Antiquarian Repertory, Vol. III, p. 468–9.
[2] Grose: Op. Cit.
[3] Institutes, III, 165.

conform to the ceremonies or religion to which the person sworn adheres,[1] and be substantially according to the formula legally provided for the occasion.[2] It must be given reverently and a simple affirmation answers every purpose. The words "so help you (or me) God" are not necessary to make it complete.

When this method of binding men was in its experimental stage, an unsupported oath was looked upon by the courts with extreme distrust. This gave rise to the oath of Compurgation. It was an oath based not upon the knowledge of a witness but upon his belief.[3] The accused swore to his own innocence and a number of others (usually twelve) repeated some formula like that in the year 900, "By the Lord the oath which ——— has given is clear and unperjured;" or that common in Normandy a century later, "What the accused has sworn is true. So help me God and the saints."[4] When the compurgators were bishops, the process was called canonical purgation. Among the Norsemen, who carefully graded their oaths, the tylftareid, or oath of twelve, was the most binding and was always required to free one from the charge of murder. The seitareid and the tveggja manna eid were employed where the charge was less serious.[5]

As time went on vast numbers of wraithmen were called out for every trial, and compurgators at last rallied to their kinsmen as though enlisting in an army. The climax came when in the thirteenth century, according to the laws of the Saxons, a man could clear himself in this manner from any charge excepting that of theft when the goods were found on his person. It is hardly surprising, therefore, that Thorpe, the Lollard, in 1407, should refuse to make oath before the archbishop of Arundel, on the ground that men would swear to a lie as readily as to the truth.[6]

The Hebrews caused persons to be sworn in the most sacred place possible and this was naturally the synagogue. A sense of greater nearness to Jehovah came upon them there. This feeling[7] had its parallel among the Saxons who administered the oath at their altars. When perjury grew common they increased the number of the altars and one could clear himself by going to churches, from three to ten in number, grasping the ring at the door, and swearing that he was innocent.[8]

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[1] American and English Ency. of Law.
[2] Best's Principles of Evidence.
[3] Blackstone: Commentaries, Vol. IV, p. 368.
[4] Lea: Superstition and Force.
[5] Du Chaillu: The Viking Age, Vol. II, p. 557.
[6] Chambers Journal, Vol. XLV, p. 68.
[7] 1 Kings VIII, 31-2.
[8] All the Year, XLI, p. 523.

It was eventually discovered that, as among the Greeks, an oath was binding in proportion to the dignity of the god by whom it was sworn, so the reputation of a particular altar and its power over the individual imagination, added much to the force of an oath taken upon it. Lea [1] mentions the provisions that grew out of this fact at Bordeaux. In civil cases a claimant established his title in a suit for four sols, by an oath on the Gospels in St. Mayor's Court; for any sum from four to twenty sols, on the altar of St. Projet or St. Antoine; in one involving from twenty sols to fifteen livres, in the cemetery of St. Seurin. Suits for larger amounts required an oath on the "Fort" or altar of St. Seurin where those of doubtful veracity were always sworn.

The sacredness of the place and the emblems used was preserved in the Penetential of St. Darst, about the close of the sixth century, by requiring a forfeiture of four times the sum involved in the suit, for the breaking of an oath taken in church. [2] Gregory III[3] provided a series of penalities: (1) for false swearing on a consecrated cross or on the hand of a bishop, three years of penance; (2) on the Gospels or on an altar with sacred relics, seven years. The Welsh statutes required similar service for absolution, but sixteen months sufficed if the act could be shown to have been committed involuntarily, and four months, if it was done to save life or limb.

In the last few paragraphs a hint has now and then appeared indicating that the corporal feature of the oath was strongly significant. This will be more apparent after a wider examination of facts with this thought in view. The Nagyars of Assam,[4] like the Chinamen in some provinces place their hands on the body of a fowl warm and bleeding. Sometimes they touch a tiger's tooth or a spear, and pray to perish by it if they perjure. The Ostyak[5] presents himself before the head of a bear and makes the motions of eating. The Parsee grasps the tail of a cow. The strongest oath of a Chinaman is by his joss stick burning.[6] Sometimes, in the courts, he breaks a saucer against the witness box and is told that his soul will be thus broken if he fails to tell the truth. The Assyrians, Egyptians, and Jews[7] had a custom of touching the thigh when taking an oath. A Gentoo touched the foot of a priest; a Brahmin the

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[1] Op. Cit., p. 90.
[2] Lea: Op. Cit., p. 20.
[3] Lea, citing Gregory III, De Criminibus et Remediis, III.
[4] Butler: Journal Asiatic Folk Lore Soc., p. 316.
[5] Erman: Travels in Siberia.
[6] Best: Principles of Evidence, p. 162.
[7] Gen. XXIV, 3: XLVII, 29; Jer. L, 15.

forehead of another Brahmin.[1] The Greeks and the Romans laid their hands upon their altars. At a later day the Bible was put upon the altar and the hand was placed upon it. The Mohammedan touches the Koran. Once he placed the right hand flat upon the open book and the left upon the forehead. The body was then bent forward until the brow rested on the book.[2] Both hands are now laid upon it and the attitude is erect. The Saxons rested their hands on sacred pillars,[3] and the Frieslanders grasped a lock of hair with the left hand and made a cross upon it with two fingers of the right. Another contactual form is kissing the Bible.

It is also important to notice the attitude of the person sworn. Excepting the Jews, nearly all of the peoples described in the study stand with uncovered head. In taking the saucer oath, the Chinaman kneels. The Greeks, especially in the case of a vow, usually "held their hands up toward the gods." Sometimes the skirts of their garments were slightly raised toward heaven. The Israelite often stretched both hands upward as he named the name of Jehovah.[4] The Frenchman raises the right hand as he says "je jure." The Dane had a practice of holding the thumb and two fingers of the right hand partly extended and slightly curved as the clergy of the Greek church hold them in benediction. So placed they are supposed to symbolize the Trinity. Some tribes stand in a circle with the one who is to take the oath in the center, and in the Porte, all rise while the oath is being administered. From these illustrations it is apparent that the attitude of one while being sworn has sometimes been that of prayer or supplication, sometimes of humiliation, and always of twofold submission.

It is evident that on one side this submission is to the formulated code of organized society. On the other it is a form of homage to the shapes of an illimitable world of indefinable fears. Our own court oaths leave these utterly vague. There is something more specific, which helps to realize them, in the Burmese obligation :[5]

"I will speak the truth. If I speak not the truth may it be through the influence of the laws of demerit, passion, anger, pride, false opinion, hard-heartedness, and scepticism, so that when I and my relatives are on land, tigers, elephants, and poisonous serpents shall seize and bite us that we may certainly die. Let the calamities of fire and water, rulers, thieves, and enemies oppress and destroy us. Let us be subject to all the calamities that are within and all that are without the body. May we be seized with blindness, deafness, and dumb-

[1] Abbott: Dict. of Law, 1023, Sect. 3.
[2] Ford: Living Age, LIII, p. 256.
[3] All the Year, XLI, p. 522. Best: Prins. Evidence, Vol. II, p. 116.
[4] Gen. XIV, 22; Deut. XXXII, 40; Dan. XII, 7; Rev. X, 5-6.
[5] Vincent: The Land of the White Elephant, p. 171.

ness, leprosy and hydrophobia. May we be struck with thunderbolts and lightnings and come to sudden death. In the midst of not speaking the truth, may I vomit black blood and die suddenly before the assembled people. When I go by water may nats (spirits) assault me, my boat be upset, my property be lost; may alligators, porpoises sharks and other monsters crush me to death, and when I change worlds, may I not arrive among men or nats, but suffer unmixed punishment and regret in the utmost wretchedness amongst the four states of beasts, Hell, Prita, Beasts, and Arthurakai. But if I shall speak the truth, when I change worlds . . . . may the seven possessions, the seven laws, and the seven merits of the virtuous be permanent in my person, and may I attain to the happiness of men and nats and realize merit, reward, and perfect calm."

The old Spanish formula suggests the preceding: "If I fail designedly of this oath, ye powers above torment my body in this life and my soul in the next with horrid tortures. Make my strength and my words fail. In battle let my horse, and arms, and subjects fail me when my need is sorest."[1]

In giving a charter to the Franciscans, in 1463, Mohammed II is said to have done it with the following obligation: "I swear by the great God, the Creator of Heaven and Earth; by the seven books; by the great prophets; by the 12,400 prophets; and by the sabre which I wear, that no one shall act contrary to these commands while the monks do my bidding."[2]

A formula running back probably to the sixth century, bound the taker "by God Almighty and his only begotten Son Jesus Christ, and the Holy Ghost, and the Most Glorious Mother of God and ever Virgin Mary; and by the Four Gospels (held in hand); and by the holy Archangels." The Scottish Covenanter always named the Judgment.

The fetichistic idea appears in the last clause of the Deemster's oath[3] found in the Manx statutes in 1422 and used since then. The oath begins: "By this book and by the holy contents thereof; and by the wonderful works that God hath wrought in heaven above and in the earth beneath in six days and seven nights, I swear that . . . I will execute the laws of this Isle . . . . as impartially as a herring's backbone doth lie between the two sides."

In the reference to the Deemster's daily diet there is a suggestion of how much a man *is*, *what he does*, *what he eats*, and *what surrounds him*. Many class oaths and many personal obligations grow out of just such a soil. And it is both natural and philosophical. This was recognized by the Indian Law. It was there provided that a Brahmin should be bound by his truth; a Kshatriya by his horses, his elephants, or his arms; a Vaisya by his cows, his corn, or his gold; and a Sudra by his crimes. The Greek ruler found his scepter a powerful bond. The Roman farmer invoked Ceres; the trader, Mercury, god of thieves; the soldier swore by his spear, sacred to Juno at Rome; at Rhegium worshipped as Mars. The Ionian fisherman swore by his nets; the fowler by his snares. In Gaul the spear and the javelin were important. The tribes of New Guinea invoked some kind of weapon next after the sun. The

[1] All the Year, XLI, 522–3.
[2] All the Year, XLI, 522–3.
[3] Lond. Folk Lore Soc., Denham Tracts, Vol. I, 186.

Frankish appeal was to the drawn sword, and in the seventh century, the sword and harness of the soldier were consecrated. In the same spirit, the Norse warrior used to say before making faith :

> "Oaths shalt thou first to me swear :
> By board of ship,
> By rim of shield,
> By shoulder of steel,
> By edge of sword."

In the days of Elizabeth, fencing masters subscribed to certain regulations, making oath upon the cross of a rapier, and on the battlefield, soldiers often kissed the cross upon the hilt of a sword and died happy, although no priest was at hand to minister to them.

Similarly national standards, colors, heraldic emblems, plants, trees, animals, society ribbons, and badges, have formed a part in the most solemn enjoinders. The Byzantines swearing by their coins, make an example of confidence, that we, with our confession of faith stamped upon some of our questionable currency, cannot parallel ; but with our "gold bugs," "silver beetles," campaign watchwords and symbolization of principles everywhere, we can appreciate the meaning that attached itself to the eagle in the days of Napoleon, the wild boar of Philip the Bold, the leopard of Charles the Fair, the salamander of Francis I, the Bull of Claire, the Dragon of Aragon, and the goose, to which the Romans looked as their saviour from destruction.

This very brief and condensed sketch of some of the necessary elements in an oath, ways of taking it, formulas used in various parts of the world, and the stages of its growth, would be incomplete without noting some of the means used to keep it sacred.

So long as there was a severe ordeal in the ceremony and the effect of an infraction was believed to follow immediately, there was a tendency to tell the truth as the only means for avoiding pain ; but when the specific terrors of the moment were exchanged for the idea of future suffering, and there grew up a concept of a universal system of accounts in which the human party was not even bothered with a pass-book, because the future is distant to feeling even when thought pronounces it near, and because men forget so easily what they ought to remember most carefully when it conflicts with the instincts of the moment, perjury rapidly increased. Penalties were therefore devised and summarily administered to constitute a check. When taken to some especially dreaded altar, at the thought of their crimes, persons guilty of false witness often grew rigid, stood speechless, or fell in epileptic fits. Death was at one

time a punishment for perjury. Cutting out the tongue was another form. Among the Persians, if one known to be guilty approached the ordeal water as though innocent, he was given seven hundred blows with the horse goad. The statutes of Elizabeth decreed on the suborner "perpetual infamy and a fine of 40 l." If the fine was not paid, the perjurer was compelled to stand with both ears nailed to the pillory for a time and six months of imprisonment followed.[1] In the days of George II, an offender was sentenced to seven years, or transportation. Return, or escape without benefit of clergy, was felony. The present penalties, fines, imprisonment, and disqualification for giving evidence in court are without doubt the strongest incentives to truth telling connected with the oath for those who have so slight an appreciation of justice and so little regard for their word as to be easily inclined to perjury.

VIII. The Effect of being Doubted, Ridiculed, or Detected, Lying as it Appears in the Attitude and Emotions of Children.

1. F., 13. Told something she believed to be true. Children laughed. Felt mad enough to kick them. 2. M., 6. When true statement is doubted, gets angry, stamps, shouts, sometimes strikes doubter. 3. F., 14. When my true statement is doubted I feel that I can say nothing more. I just say "I told the truth." 4. F., Adult. I want to hit the person who doubts me and I never feel like speaking to him afterward. 5. F., Adult. Once my true statement was doubted. I held to it until I had hysterics. I was coaxed to yield but I could not. It was a turning point in my life. 6. M., 11. When the boys don't believe me, I think they think I was fooling and I say "honest and true." 7. F., Adult. When any one laughs at my statements I wish that I might sink out of sight. 8. F., Adult. When laughed at, I feel that I never wish to venture an opinion again. I begin to doubt my mental capacity. 9. F., 9. When what I know to be true is doubted I am first indignant, then bitter, and I always remember it against the person. 10. F., Adult. When my opinion is ridiculed I feel as though I would not try to tell the truth next time. 11. M., 6. Told a wonderful story of the breaking of a mowing machine. An observer told the facts. Boy reddened, hung his head, but added, "by gosh, he lies." 12. F., 10. Charged with lying, and justly, raised her voice and said, "It is so, and you know it." 13. M., 13. When I tell my mother what I have seen and she does not believe me, I wish I had n't told her so many lies, but I tell her it is so even if she does n't believe it. 14. M., 15. When any one doubts my word I feel like giving him a good whaling to make him believe it.

Nearly 500 writers have described their own feelings or given records of their personal observation of children in regard to matters touched by the topic of this section. When some one has doubted their statement of what they thought to be true, 78 are "angry," "mad," or "sarcastic;" 28 feel "embarrassed,"

[1] Lea: Superstition and Force.

"hurt," "discouraged," or "heart-broken." 110 take an attitude of defence; 105 of these look the doubter in the eye. 94 "set their lips" and speak in a voice either "loud" or "shrill." 57 "stamp." 141 think they are right and "argue the matter." 62 asseverate, call witnesses, and leave nothing undone to prove their position. 72, of a more subjective type, "flush," "bow the head," are "silent," or "speak rapidly with trembling voice." Some feel ill. 17 cry. 16 use the question of appeal. 28 appear disinterested or think that the "truth" is not changed though the "statement" of it be doubted. 5 want to convince an opponent and "exult" over him. 11 feel as though they were really wrong; 10 that the world is going against them; and others care less for truth.

When ridiculed, 77 are "angry," "stamp," "want to hit," and say "sarcastic," or "hateful things." Only 19 speak of defending themselves, while 81 are "embarrassed," and feel as though "ill treated," or "struck a blow." A few speak in their usual voice, many more in trembling, uncertain accents, and show nervous movements. 20 cry. 3 go away and hide themselves. 69 "do not feel like offering an opinion again," want to "leave the room or person," or "sink out of sight." 3 have the "impulse to lie" next time, and 9 "dislike" the person who laughs and "cut" him afterward.

Detected in a lie, 77 are defiant, manifest anger, clench hands, look boldly at the accuser at first and speak with firm voice. 90 stand with bowed head and downcast eyes, show nervous movements of the hands and body and speak with weak voice, or keep silent. Sometimes there is an effort to change the subject. 2 hide the face, 2 are scornful and "don't care. 13 cry.

A comparison of the facts presented, relating as they do to states that seem so different in themselves, strongly suggests that the phenomena which follow the doubting of what children tell, ridiculing their opinions, and detecting them in falsehood, present so many common features that they make a very unsafe criterion for judging of the correctness and sincerity of a child's statement. One reason for this is that children, admitting the reality of objects without question, and knowing nothing of the avenues by which illusion steals into their sense perceptions, never doubt the results of their own observations. Being taught to rely upon others, they are in the habit of giving implicit confidence to what others tell them; therefore, because of this combination of ignorance and trust, the doubting of their assertions always strikes in upon the self like a personal shaft. The reaction against it depends entirely on the temperament of the child but it may present precisely the same symptoms that follow the detection of a lie. On the other hand an habitual liar may assume the manner of one of a motor habit in the de-

fense of an honest cause. Ridicule brings more utter abjectness than either of the other conditions named. Nothing is more cruel or unjust. Doubt gives the first impulse against truthfulness because it may taint with indifference. It is a rudimentary negation of the desire to tell things exactly. This is followed by lack of interest in seeing things accurately, on which the certainty of so much of sense knowledge depends. Too thoughtful care cannot be given to this matter and to the discrimination of the motives of children in telling their stories, imaginative, false, and true, as Dr. G. Stanley Hall has shown.[1]

IX. The Feeling with which Asseverations, Ordeals, and Ceremonies are used by Children.

No sections of the syllabus were so generally answered as those upon the topics named above. 2,258 persons contributed some fact concerning their use. One group of 1,309 is made up of persons from the age of ten to adult life who give their own experience. 1,075 have used "some of the forms" of IV, V, and VI. 236 have not used them, either because of fear or parental instruction against them. 29 do not remember ever having heard the stronger forms like "May God strike me dead," and "I hope to die." 827 always felt that they "must be believed" when using them; 679 "never dared to use them except when telling the truth;" and 670 were always "inclined to believe other children when they were willing to use such expressions." 311 confess to having "outgrown" the strong fear that attended strong asseverations and ceremonies in childhood; 276 say that the "fear still persists" 289 regard them as "stronger than an oath;" 167, as "weaker;" The majority did not make a comparison. The grammar school writers have great faith in these forms as compellers of truth. Of the older observers, many of whom are teachers, 371 say that there is a much greater probability that a child is telling the truth when he submits to ordeals or uses these forms of protestation, and 25 think that there is always some form beyond which no child dares to go when telling what is false. [See VI, 17.] Several recognize the claims of individuality by saying "it depends on the child." On the other hand, 574 urge that such forms give the idea that truth is weak and little respected in itself, that these expressions become habitual and lose their force, that liars use them to gain confidence in their own statements and to gain greater credence with others, and that the general effect is against the cultivation of a habit of stating things simply and accurately.

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[1] Pedagogical Seminary, Vol. I, p. 211.

Both views are probably correct. These acts constitute a sort of graded series. Under certain conditions, each element in the series comes at a particular period of life naturally, and has its run, like the diseases of childhood. During this period its power is great. When its function is outgrown, the form is discarded "like old clothes" and a new one comes like a new garment to please, to be exhibited, and to keep the conscience free from that which is likely to spot the fabric of truth. In time, however, the child, having passed through the stages of the racial babyhood, grows into a comprehension of the codes which are common among men and accepts them as his own.

It hardly seems that there is any great danger in these instinctive acts. They are strikingly evolutionary. Yet training into the idea of the dignity and power of truth ought to begin early with simple truth telling. It ought to be fostered by trust and followed throughout childhood. There need be no fear of robbing the ceremonies of any benefit which they have to confer, since 909 writers say that they were constantly warned against such acts and expressions at home, but continued to practice them until other ideals made it desirable to forget them.

Several conditions involved in the data are apparent throughout. Back of all else, there is evidence of a passionate love for things, an impulse to believe in them, to grow into them, and to be ingrown by them. There is that which suggests an unconscious, unformulated, and inexpressible desire to realize what selfhood is and to preserve its identity. Such a realization demands a static basis. This is reached when the elements of doubt give place to a personal assurance of rest in a larger unity—when a chaos of unrelated and seemingly contradictory constituents yields to the cosmic law of a central correlating attraction.

Inseparable from this instinct for certainty is fidelity of testimony. Every moment calls for a marshalling of forces to meet new conditions. The laws of society demand truth in words and in works. Such faithfulness of evidence involves: (1) Accurate perception of relations and forces; (2) An impulse to express truth; (3) Ability to do it. In the papers studied, all the evidence tends to show that neither errors of perception, nor inability to tell what has been perceived are noted as a ground for doubt when children are comparing their experiences, but, from some cause — it may be the old animal instinct to guard against enemies and accidents; it may be the bare-faced lies which parents sometimes tell their children; it may be the result of careless jests—there is abundant proof that one's sincerity at the moment of speaking is always suspected. The point of the formal oath seems to rest here. It is such a suspicion that underlies all the empirical proof, calling of witnesses,

wagering, asseveration, ceremonies, and oath-taking, described in the preceding pages.

With children every new idea is a little fetich. The word which symbolizes it is used at every opportunity. It is one limit of the instinct for categories; the opposite limit is the formal oath in the name of the All-containing, All-controlling Category. Every man has his own ultimate standard. The primitive mind was content with swearing by a bird, a fish, a weapon, or a star; but the divinity of Pythagoras was the number 4. The miser *lives* an oath by his gold; the gambler by his luck; the society man by conventionality; the farmer by the plow; the editor by the pen; the belle by the fashion plates; every one by his highest ideal of utility or excellence. If Kant had formulated a personal oath, he would have re-echoed his "God, Freedom, and Immortality;" Richel would have bound himself by the power of Feeling; and Lotze by the spell of Worths, or the sublimity of the Good-Beautiful.

But the fetichistic idea is not the only one running through the pages of the study. It has so many aspects that no adequate summary is possible. However, two deductions of general philosophical interest may be made:

1. Every step taken by children in their positive methods of manifesting certainty, so far as it is concerned with knowing at all, rests on the principle of immediate knowledge.

2. There is a remarkable progressive parallelism between the ordeals and ceremonies of children and those by which the race has evolved the principles of law.

If one permits the records to teach their lesson for pedagogical application, they show:

1. The trusting spirit of chilhood;

2. The impulse for right;

3. The penitent spirit, shown in the willingness to sacrifice the most cherished pets and toys for truth;

4. The martyr spirit, apparent in the ordeals and penances, and heightening the idea of the love of truth and certainty already mentioned;

5. The mystic spirit, cropping out in the ceremonies and oaths;

6. The cumulative force of asseveration (Ordeals, VI, 17);

7. That doubt and ridicule give the first impulse toward untruthfulness and that truth is fostered by trusting;

8. That falsehood in children is usually the result of ignorance or error rather than of evil intention;

9. The organizing instinct among children; (This may be made one of the strongest levers in school economy. At the same time nothing can be turned to better account in developing individual character.)

10. That more effort to answer to the need of affection felt by the pupil, and to shape his sentiments into harmony with the "Good-Beautiful" is desirable;

11. The evil of teaching by negation.

PART II.

Every great principle has its negative application. In tracing the development of standards for enforcing accurate testimony, it has been shown that the formal oath with its attendant ceremonies and privations is the highest compulsory standard in use among men. But, as oftentimes in the past, the efficacy of this means is put in jeopardy by the wholesale practice of common swearing. This practice is a part of the capital of the roisterer, a kind of half-ritual preparatory to the toga virilis with boyhood, a fad of the school girl, a piquant practice in society, an automatic and sometimes even cowardly backward glance with too many who have professed to renounce their worldly sins, and, occasionally, in colorless phrases, it gets new life from the lips of clergymen who soberly declaim against it.

Oaths are so numerous and their use is so common that one rarely thinks of their origin. When this does come to mind, there is so little known of the affective states out of which all forms of expression have grown, and such a conflict of opinion on so many points touching the field, that it is almost hazardous to offer anything concerning the source of these "rabble charming words that catch the ear" unceasingly. Yet the fear of error does not always serve the cause of truth and, on the whole, it seems as though an attempt to get at some idea of the scope of our present vocabulary of expletives, to examine their nature, and at least to trace remote analogies to them, where such exist, is worth while even at the cost of many mistakes and charges of presumption. This work is modestly attempted in the hope that there may be something in it for others to work upon, if nothing more.

Some Common Oaths and Exclamations.

I. Profane Oaths.

By the Eternal, God, Christ, Jesus, Jesus Christ, Jesus H. Christ, Jesus God, Jesus Christ and John Jacob Astor, the Father Above, the Father of Light, the Great Father, the Merciful Father, the Gracious—, the Great—, the Holy, the Great Holy, the Good Holy, the Holy One, the Holy True, the Holy Spook, the Holy Ghost, the Lord of love, the Merciful Goodness, the Great Jehovah, the Great Lord, the jumping Jehovah, Jehovah, the Lord of Heaven, Heaven, the Lord God of Israel, the Long Suffering One.

These are profane according to the standards of the church, but in law it is not necessary that the name of God or Christ be mentioned to constitute profane swearing. If the list offered

here be compared with one of Sharman[1] gathered from the "Satyre of the Three Estaites," (Sir David Lindsay, 1490–1555) and "Gammer Gurton's Needle," ascribed to Bishop Still, it will be seen that the manner of thinking upon God, as well as methods of worship, have changed very radically during three centuries. In the Sixteenth century men were touched by the miraculous in God's work; impressed with Christ's Passion, and inclined to make a fetich of the cross, the robe, the wounded side, and the sacrament. It was their practice to adore emblems where the men of the Nineteenth century worship attributes. One century pours out the expression of overflowing feeling; the other offers as its tribute, the incense of the old feeling intellectualized.

Of the period covered by Lindsay, the oaths found in the works of Rabelais are the most flippant and blasphemous. It was his delight to make the monks, whose inconsistencies he scathed, swear the most revolting expressions. Nothing else can be inferred from the apologetic *da jurandi* which was often thrown in after "by G—" and coarser forms. Another prominent feature of the oaths of this writer is their denunciatory character.

In hearing the stronger forms of swearing, any one who has been carefully educated receives a psychic jar. 524 persons told their feelings at hearing profanity, when they gave a record of oaths that were familiar to them. Embarrassment, surprise, chills, weakness of the limbs, sensations of fear, impending calamity, pity for the offender, sorrow, disgust and a tendency to despise such as have had favorable surroundings but swear in spite of their advantages, are the emotions which these writers note in themselves when another indulges in violent cursing or protestation.

Naturally opposed to this is the fact that men are social and language is the means for manifesting the social instinct. In any given circle, next after similarity of dress, similarity of dialect is the surest passport into the good graces of its people, assuming, of course, a fair degree of fitness in one for approaching men. Now those who are religiously inclined do not wish to swear, nor do they like to seem wholly different from their friends in forms of expression. Therefore, forgetting that the faith holds out before them the idea of a kind of inhibition which gives free utterance only to what is simple and exact, such often make a compromise of expressions which clear the strict letter of the law against profanity, but which in no sense make the habitually profane man feel that they are different in meaning from his own. The methods

[1] Cursory History of Swearing.

of softening are many. All kinds of phonetic changes are made. There are crases, elisions, examples of tmesis, metathesis, and substitution of terms, as well as metonymies and far fetched associations. There are also remnants of formal oaths, nonsensical phrases that "catch," errors of pronunciation, traces of traditional customs, past practices of church and State, memorials of ideas that attained some degree of dignity and became objects of warm interest but never became quite proverbial, expressions now wholly faded but once full of meaning to the primitive faith and imagination, exclamations that have grown into oaths and oaths that have dropped back to mere exclamations. The most fitting name for all these expressions which seem almost to have been blown together by the four winds is

II. Trivial Oaths.

1. Differentiations from Profane Oaths.

By dad, bedad, begad, egad; by gad, gid, gob, gud; by Ge'frey, Godfrey, Godfrey mighty, gashfrey; gash, garsh, gish; by the mighty gosh, gosh almighty, goshy mighty; by gee; by golly; by gee gosh, golly gosh, gee rod, gee holy, holy gee, gewhitaker, gewhillikin, or jewhillikens, gee Mose Hannah; by dam, darn, dang, the mighty darn, by dingnation, damnation, timenation; by gol; by gol darn; by clist, cripes, the holy cripes, jiminy cripes, Christopher, Christmas, jiminy Christopher, jiminy Christmas, the holy Christopher, the holy Christmas, gee Christopher, Christmas alive, Christmas and New Years; by chriney, gen chriney, Jeems Rist, Jeems Rice; by jegus, jeeswax, jiminy jeeswax, jiminy cheeswax, je's or gis, golly Moses, geeswiz, gee whiz, gee swayzes, and the yumping yesus.

Granting that these are generally used as exclamations, automatisms, or provocatives of humor, the effort to escape from open profanity, so clearly apparent in every form, shows a consciousness of the nature of the act, that makes the use of such trifling expressions seem worse than honest swearing. The derivation of nearly all these forms is so thoroughly in accordance with established principles of phonetic change that comment is unnecessary. Godfrey and Christopher enable the user to turn a phrase innocently, to give a casuistical explanation of his oath and to clear himself of the charge of profane intention in using it. The latter term may have resulted from the practice of swearing by the saints.

Jiminy (jemony, geminy) suggests gemini, the Latin for twins. This recalls the zodiacal sign of Castor and Pollux and *ναὶ τὼ Σιώ*,[1] the favorite oath of the Spartans. A less satisfactory derivation makes jiminy a crasis for Jesu Domine.

Expressions like gewhitaker, jewhillikins, geeswiz, and gee whiz are hard to account for. Writers on slang call them

[1] Xenophon: Anabasis, Bk. VI, 6, 34.

"euphemistic oaths." These seem like forms that might result from trying to break off the habit of swearing. Any one who has ever tried to inhibit expressions that have become reflex, knows how often they are found half said on the lips and are finished in a different way under the direction of consciousness. The forms above indicate a beginning of the oath "by G—" or "by Jesus," and a shift in finishing that brings in, perhaps, the name of some man whose initials fit the beginning, or causes the expression to die away with something similar in sound to the habitual term or, possibly, wholly unlike it. In geeswiz, element by element, there is almost a perfect phonetic resemblance to the sound of Jesus, yet it and the following word may have been caught from a blundering reading of *gewisz*.

"*Gis*" is without doubt a contraction of Jesus. Sharman says[1] it is a "feminine oath" and that it is taken from the name of St. Gislen (whose identity and mission are both in doubt). It has been suggested that the word is a crasis of the letters I. H. S., which probably account for the middle letter in oaths like "Jesus H. Christ."[2]

The attempt to take away the harshness of swearing is not peculiar to Americans. The Italian had his "Dio mio," "Madonna mia," "per Christo," and "accidenti" for moments of despair, pity, and anger or hatred, but in better humor, he swore by "capers" and "cabbages." The ventre bleu, corbleu, parbleu, morbleu, and similar exclamations of Victor Hugo's writings, in the time of Louis IX, were cordieu's, par dieu's, and tête dieu's. Louis's statutes provided that profane swearers should have their tongues pierced with a hot iron. Sharman gives authority for the story that the courtiers asked leave to substitute the name of Bleu, the favorite dog at the palace, for Dieu; it was granted, and the Frenchmen still swore and kept their tongues intact.

The same thought of softening appears in the oath of William I, "by the splendor of God," and in that of William II, "by the face of Lucca," meaning an image of the face of Christ on a crucifix at Lucca. In the Canterbury Tales, the oaths "by the nails and blood," and the "'ods life," "'ods blood," "'ods heart," "'ods bodkins," "'ods zooks," "'s life," "'s death," "'s blood," "zounds," which are so frequent in the works of Shakspeare, Sheridan, Congreve, Beaumont and Fletcher, and many others, give evidence of the same intention.

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[1] Op. Cit., p. 193.
[2] Section I.

2. Containing Allusions to Saints, Priests, Prophets, Ecclesiastical Rites, and Persons or Places Conspicuous in Church History.

By the saints above, all the saints, the blood of all the saints, the blood of Moses and the saints, the saints in heaven, the holy saints, holy saint Mary, St. Christopher, Mark, Patrick, Peter, Daniel Defoe and the Saints; the Fathers, by Moses, Moses and Aaron, the great or holy Moses, the holy Moses and the angels, the laws of Moses, Moses and the Ten Commandments; by jiminy Moses; by Peter and Paul, the glory of Peter, the great, good, gracious Peter, the holy Peter; by Job, the holy Job; by Jehu, Jehosaphat, Nebuchadnezzar King of the Jews, Solomon; by the beard of the prophet, the priest's gray beard; by Judas, by Judas paste, by Judas priest, by the jubitus priest; by the land of Goshen, Jericho, Jerusalem, the mountains of Jerusalem, the land of love; by the holy smoke, holy cinders, John Rogers; the holy day, the heavenly day, the great day, the great day in the morning, the land of everlasting living, the great day and night, the great glory; by all holy things, by all that is good, by all that is good and holy; by my soul; by the cross of gold; by the gospel; by Gabriel and his trumpet; by hokey, by hocus pocus, by the hokey pokey, by the eternal hokey pokey; by zukes, jukes, jucks.

Of the 70 forms not one-third would be readily caught by the child or adolescent. They are too long, too labored, and too abstract. They contain fossil prints of qualities once believed to be the only seal of perfection. They are judgments that epitomize a life in a figure. One-third of all center about something characterized by holiness. Patience, wisdom, skill in ruling, prophetic power, horror at the thought of duplicity in sacro-sanct surroundings, and in places famous by reason of holy associations, are all commemorated in these solemn phrases. Some recall the days when saints were invoked, no more on account of their holiness than because of their power over disease and destiny. Saint Christopher and St. Mark could avert sudden death; St. Blaise kept bones from sticking in the throat; St. Anthony had control over inflammations; and St. John over epilepsy and poison.

Some of these oaths have doubtless grown out of the idea of patron saints for trades, and occupations, towns and cities. St. Anne presided over riches and restored lost articles; St. Dunstan was the genius of goldsmiths; St. Peter became the guardian of Rome, a place once held by Mars; St. Patrick was the patron saint of Ireland; and St. Mary was supposed to bring peace and kindly ministration to many places like Bruges, Brussels, Mechlin, and the cities of Holland, Sardinia, Sicily, Switzerland, and Russia. Her mission is nicely expressed by Googe in his translation of Naogeorgus:[1]

"To every saint they doe his office here assine,
And fourtene doe they count of whom thou mayst have aid divine;

[1] Brand: Popular Antiquities, Vol. I, p. 363.

Among the which our Lady still doth hold the chiefest place,
And of her gentle nature, helpes in every kind of case."

According to Grose,[1] the oath "by Peter and Paul" came from the practice of invoking them as a part of the ceremony of detecting thieves by the ordeal of the "sieve and shears." When saints and angels are invoked together, it may be the result of a feeling that saints have especial ministering spirits, or a survival of the teachings of men like Plato, Plutarch, Empedocles, and Origen concerning protecting spirits.

"By Judas paste" is the sentence of the ages upon one who could do an act of treachery at the time of a sacred festival in an age when the mere eating of bread with a stranger formed a hallowed bond. "Judas priest" may be a corruption of the last expression. "By the jubitus priest," the force of which probably lies in the adjective, is perhaps an incorrect spelling of jubatus, crested; this makes a natural reference to the wearing of fillets when sacrificing or declaring prophecies.

It is doubtful if the mention of Goshen or Jericho in swearing ever recalls nowadays the importance of the former to a people in a critical time, or the marvellous capture of the latter. Jerusalem, aside from being the holy city of both Christain and Turk, and the center of the most lasting associations in other respects, is a monument of conquest, destruction, and Phœnix-like recovery. Any city which survives twenty periods of conflict and passes through the hands of half a dozen peoples, must touch the world with wonderment and become fixed in its thinking. Its first syllable is also half an oath by imitation.

Brand[2] would make "holy smoke" a reference to the incense fires kindled on all the hills as an emblem of immortality, on the eve of All Souls. This custom was common during the Middle Ages. But it is only a survival of the practice of burning incense on altars and making burnt offerings in earlier times among the Arabians, Phœnicians, Hebrews, and Indians. It brings back the Greek, vaporizing flesh that it might become available to the dead, and the Roman and the Carthaginian who kept the fires of faith from burning low. "Holy cinders" is possibly connected with the idea of lustration by ashes, but it seems more like an attempt to vary the previous expression by contrast.

"John Rogers" is remembered as an example of steadfastness in the faith. The "holy day" may be Sunday, Christmas, the Great Sunday of the Greek church, or the Holy Sunday of the Anglican. The idea of the judgment and of the future life appears again in "by the great day" and "by the land of

[1] Provincial Glossary of Superstition, p. 55.
[2] Antiquities of Great Britain.

everlasting living." The same is true of "by my soul," and "by Gabriel and his trumpet."

"By the cross" recalls both the function of the cross in formal oaths and its efficacy against witchcraft and all sorts of evil. The symmels of Passion Week were once marked with a cross before being baked. In Scotland everything from a silver spoon to the "torwoodie" had a cross upon it to avert evil spirits; and within a half century, Durham farmers have placed a cross on the shoulders of their sheep over the portion that once fell to the priest as a peace offering.[1] The cross appears again in the business of every day. The man who cannot write, makes a cross between the parts of his name written by another. To most people it is merely a mark of illiteracy, but it was once an oath required of scholars, kings, and nobles after their signatures as an evidence that the document was genuine.[2] "Zukes" is merely an auditory spelling for "zooks," his (Christ's) hooks, a reference to the nails on the cross. "Jukes" and "jucks" may be corruptions of the same expression, although the latter may be either a derivative of "shucks," a name given to the "blue backs," or notes of the Confederacy,[3] or it may have a coarser origin, as will be shown in another section.

"By hocus pocus" and the forms from it are supposed to be from an epithet in derision of the papistical sacrament, made into an oath. It was one of several names employed by the irreverent when referring to this ceremony, and is said to have sprung from the indistinct manner in which the priest pronounced the words, "hoc est corpus" in the service.[4] Brand,[5] quoting from Ady's "Candle in the Dark" makes this a juggler's term. He speaks of a man whom he says was called the "kings most excellent hocus pocus because, at the playing of every trick, he used to say: 'Hocus pocus, tontus, talontus, vade celeriter jubeo,' a dark compromise of words to blind the eyes of the beholders." Butler uses the idea of cheating or magic in

> "Convey men's interest and right
> From Stiles's pocket into Nokes's
> As easily as hocus pocus."[6]

"By the beard of the prophet," and "by the priest's gray beard," are primarily oaths of Jew and Turk and Persian. In the

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[1] Henderson: Folk Lore of the Northern Countries, p. 257.
[2] Southwick: Wisps of Wit and Wisdom, p. 50.
[3] De Vere: Americanisms.
[4] Southwick: Op. Cit., p. 148. Tillotson: Discourse on Transubstantiation.
[5] Pop. Antiq., p. 61.
[6] Hudibras, III, 3, 713.

books of Marryat, Jonson, and Scott, there are numerous forms referring to the life or dress of the prophet. Among other expressions, "by the holy Allah," "by the holy prophet of the Paeba," "by the corner stone of the Caaba," and "by the beard of the prophet" occur. Aside from the "gray," to which reverence and oracular power were ascribed, the beard was once a mark of consecration. It was said of the Nazarite, "No razor shall come upon his head all the days of his separation."[1] The hair was a special pledge to God until the day should come for the fulfillment of the vow, and the oath by the beard probably grew out of such a sentiment.

3. *Making Reference to the Blood, Relics, or Manes of Ancestors and Heroes.*

By the blood of my ancestors; by all those who came before me; by the blood of my fathers; by the blood of my grandfather; by the ashes of my grandfather; of George Washington; by the spooks; by the ghost of my grandmother; by my father's ghost; by great Cæsar's ghost; great Cæsar's dead ghost; dead ghost on a bicycle; by the great spooks; by the ghost of Jehosaphat; by the ghost of St. Peter; by the shades of Webster; of Priam; by the grave; by the great catacombs; by the bones of St. Barnabas.

These are the last traces in civilized society of ancestor and ghost worship, once so nearly universal that evidences of it are found wherever there is proof of the existence of any religion whatever. While we are utterly forgetful of the fact, these keep us in rapport with Greek and Roman lifting up their voices to the Manes of their friends. They help us to find interest in the shrines of the dead in the East. They touch the pilgrimages of the followers of Mohammed; the sacrifices of the Bedouin at the grave; the worship of fetiches supposed by the Sandwich Islanders to be animated with the spirits of the departed;[2] the naming of children after an ancestor to keep his spirit in the family, among the Polynesians and some East Indian tribes; the taboo among certain American tribes against calling the name of the dead;[3] the preservation of the bones of ancestors among other tribes;[4] and the distribution of such relics among the Caribs and, generally, among the Yuga and Chincha tribes of Peru.[5] They are likewise related to the belief that departed spirits return to form the spirits of unborn children;[6] to that among the Amazulus who fancy that a shade loves to linger about the place where its embodied days were

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[1] Numbers VI, 5.
[2] Spencer: Prins. of Sociology, Vol. I, p. 333.
[3] Beach: Indian Miscellany, p. 301.
[4] Brinton: The American Race, p. 54.
[5] Squier: Travs. and Experiences in the Land of the Incas, p. 190.
[6] Bancroft: Native Races, Vol. III, p. 514.

passed;[1] to the superstitious regard of the Esquimau for a shadow; and to the practice once common among the Quiches of placing a stone between the lips of the dying to receive the departing soul.[2]

From the superstitious belief that spirits return to linger about old places and, from within or without, exercise an influence over the happiness and the life of surviving friends, it is easy to see how ghosts and relics might naturally become aids to adjuration.

Among the Romans, "testor majorum cineres" was almost a superlative oath. "By the dead at Marathon," made a soul-binding spell for Demosthenes. In Persia, the strongest oath was "by the holy grave," meaning the grave of a Shah; and in England, the practice of swearing by the grave became so common that, in giving the ninth charter of London, Henry IV expressly forbade it.[3]

The adjurations by blood, owe something to pride of lineage as well as to the bond of affection. The idea that blood is thicker than water is not ephemeral. The noble deeds of an ancestor, his military feats, if a knight or a soldier, and the symbolism of the family arms, are lasting memorials. Their power is felt by all. In the oaths by "the ashes of Washington," and the "ghost of Cæsar," the memory of a national hero is preserved. In those by the "shades of Webster," and "of Priam," greatness in counsel is the leading thought. One has been caught by fancy from the pages of the classics; the other, perhaps, from the poetic flights of orators who partly borrowed it and partly felt the spell within the name. "By the great Catacombs," is a kind of universalized adjuration by the grave. It calls up the memory of the great subterranean galleries of the dead at Cairo, Naples, Paris, and Rome. "By the bones of Barnabas" is related both to the worship of relics and to an old-time practice of administering formal oaths at shrines where the relics of the saints were preserved.

4. Relics of Formal Oaths.

In law, the formal oath generally closes with a solemn enjoinder. In the statutes of Charlemagne, as in the days of Justinian, it was "sic me adjuvet Deus." The Scandinavians had "so help me Frey;" the early French, "si m'ait Dex;" the Germans, "so mir Gott helfe;" and the English, "so help you (or me) God." All of these have left a mark on common swearing. Their stereotyped form spoils them for

[1] Bancroft: Native Races, Vol. III, p. 515.
[2] Gallaway: Religious System of the Amazulus, p. 410.
[3] All the Year, Vol. XLI, p. 522.

humorous effect unless some common name is invoked to close them. The forms gathered from the syllabus were :

So help me——; so help me Great——; so help me God; so help me Abraham; so help me Moses; so help me Isaac; so help me John Jacob Astor; so help me Judas Iscariot; so help me David and Davy; so help me Mike, Maud, Rebecca; I solemnly swear; I will take my solemn oath, solid oath; I swear by the holy Bible; I swear to God; I swear to Gideon; I swan to man; I swear; I swan; I swanny; I swow; I swum; I snum; I snor; I swon; I swamp; I van; I vow; I vum.

Abraham, revered by Hebrew, Mohammedan, and Christian, is naturally associated with anything in the name of God and the faith, and for this reason would be invoked almost as readily. For variety, "Isaac" is naturally substituted, and the humorist completes a trio of associated names with "John Jacob Astor." "So help me David," may have come from one of the scriptural names for Christ, from the practice of making affidavits in legal processes, as some writers say, or from an invocation of "Old Davy," a common custom in the North of England.[1] The last name is synonymous with devil, and is perhaps related to the Davy Jones of sailors. Jesting, and the attempt to soften terms as noted in PART II, 11, will explain the remaining forms in this group.

5. *Forms in the Name of a Hero, Ruler, Sovereign, or Symbol of Authority.*

By George, the great and good George, George Washington, George Washington and Marquis De Lafayette; by Augustus Cæsar, Peter the Great, the good governor, the power of the king, in the name of the king, in the name of Cæsar; by the royal robe, the kingly crown, the purple robe, the great United States; by Christopher Columbus, the holy American Christopher, Amerigo Vespucci, Daniel Webster, Gordon Bennett; by the rod of Aaron; by my father's sword.

The first form in the list goes back to the House of Hanover, by the members of which it was used in the name of St. George, who in the fourteenth century became the patron saint of England.[2] "The great and good George" probably has a special color as a memorial of the central figure of the American Republic. "Christopher Columbus" and "Gordon Bennett" have a shadowy suggestion about them not unlike certain of the forms in PART II, 11, but possibly they may be used with the same intent as those last named. All the others in the list commemorate power, foresight, authority, achievement, or symbols for these.

6. *Forms Suggesting Chivalry.*

By my faith, by my honor, by my life, by my love for you, by your

[1] Grimm: Teut. Myth. Stallybrass's Tr., Vol. III, p. 989.
[2] Chatto and Windus: Book of Slang, p. 106.

life, by your love for me; for the love of Maud, Mike, Bell, Jerusha, John; in the name of Bridget.

Scott's knights swear by their honor and their faith. The oath of Roman knighthood was the same. According to Sharman and Ducange, the English courtier often swore by the love token on a maiden's sleeve. At banquets, from time immemorial, it has been the custom to pledge to the graces of the ladies, whether they were present or absent. Philip of Burgundy is said to have declared war against the Turks in the name of the Virgin, the ladies, and the pheasant upon the table at which he sat. There seems to be more of levity about the remaining forms of the section than of the passion of the days of romance. The invocation in the name of "Bridget" may have come from reverence for St. Bridget, on whose eve the common people of Ireland still make merry over tankards of ale.

7. *Hortatory Forms in which the Basis of the Appeal is Love, Belief in a Principle, Allegiance to a Cause, and the Consequent Duty of Personal Sacrifice.*

a. *For the love of* God, Christ, the Lord, mercy, truth, peace, goodness, all that is holy, the Fathers, the church, the country, Heaven, the land above.

b. *In the name of* God, the Lord, Jesus, Jesus Christ, Jehovah, satan, the devil, the queen, Heaven, the saints, grace, mercy, goodness, wisdom, wonder, common sense, Christendom, common things, all that is gracious.

c. *For the sake of* God, the Lord, Christ, Jesus, all that is good, bygone days, friendship; for mercy's, gracious', goodness,' pity's, Heaven's, the land's, your mother's, George's, Maud's, sake; for goodness' sake alive; for pity sakes alive; for the land of the living.

All three groups place one face to face with his ideals. They call out, but do not formulate the feeling that men are working as one for a universal end; that each in his better moments sees this truth, and in his ruder moments may be recalled, if his relation to the great whole be brought to mind. Past, present, and future are included in the forms. Groups a and c are the easiest forms to receive. B may be said with an air that betokens authority straight from the personality, or principle enjoined. It has a suggestion of compulsion where the others please with the thought of power to choose. It is constraint from within against restraint from without. It is reaction to the standards of a necessity which results from accepting a system, against reaction according to the more pleasurable necessity of working out that to which one aspires. In every case named above, the oath is not by the isolated person or thing named in it, but by all that the invocation means in human thought and progress. In nearly every case, there is a

recognition that each personal action modifies not only personal, but universal pleasure and pain.

8. Oaths by Natural Objects, Forces, and Phenomena.

By the sun; by the moon; by the moon's silver light; by the moon and stars, the sun, moon, and stars, the great stars, the stars of light, the stars of night, the man in the moon, the great clouds, the holy blue; by thunder, the holy thunder, thunder and lightning, thunder and guns, thunder and spikes, thunder and pig iron, thunder and blitzen, donnern und blitzen, donnerwetter, blood and thunder, the hurricane, Harry Cane.

These phrases are an echo of the days when men lived under the open sky and close to the heart of nature; felt the spell of the invisible in the visible; deified that which they could not comprehend. We swear by the sun knowing that its radiant beams have been a given time on their way to us; by the stars, being aware of the time that it would take to reach them at the rate at which a fast express train would travel; by the holy blue, thinking of the beauty of the figure rather than feeling the awe once inspired by its mysterious immensity. Our images as we use these terms are faint, if we recall the intensity with which the Greek appealed to the sun;[1] the invocation of the sun, moon, rivers, and fields, side by side with Zeus and Apollo, in the treaty between the Macedonians and the Carthaginians;[2] and the sincerity with which the Roman Jew bound himself, as often by the sun and earth and heavens, as by the temple and the angels.[3] The Servian, in his formal oath, still says, "so help me sun." The tribesman of New Guinea prays that it may scorch him, or that a mountain may fall on him, if he is false to his word; and the Tungus brandishes a knife at the sun, saying: "Plunge sickness into my entrails like this knife, if I tell not the truth." The sun was the great life-giver, and once shared the worship of the Chinaman in common with Earth, the All-Mother.

"By the great clouds," and the "holy blue," may be a reminder of the fanciful shapes seen in the heavens by the primitive eye and the active imagination of childhood.[4] Perhaps the latter derives something of its force from its associations as the home of the gods. The oaths by the "thunder," "lightning," and their grotesque variations, illustrate still further the personification of phenomena. Dr. Hall in his "Study of Fears"[5] says, "How such phenomena at Sinai

[1] Iliad, IX, ll., 154, 327: XIX, 254.
[2] Polybius, VII, 9.
[3] All the Year, XLI, 521.
[4] Hall: Study of Fears; *American Journal of Psychology*, Vol. VIII, 2, p. 178.
[5] Hall: Study of Fears; *American Journal of Psychology*, Vol. VIII, 2, p. 201–4.

almost created the religious and political consciousness of the plain-dwelling Hebrews, Renan has shown at length, while Kuhn's great work shows how many motives and story books of the mythology and folk lore of all the Aryan race are cast in the mould of this imagery." In North Germany, Donar was worshipped as a divinity; the Gallic tribes venerated Taranis; and with the Celtic tribes, the name of the thunder was Taran. Jupiter, the father-god of the Roman, was the thunderer. Norsemen saw in the thunderbolt a picture of angry Thor hurling his heavy hammer. Thus the execration "thunder strike you," or "hammer strike you," was an appeal to Thor to deal death to the accursed. In eastern Prussia, men of Lithuanian descent place the right hand on the back of the neck and ask Perkun to destroy them if they perjure when swearing. Many of these old fancies, beliefs, and superstitions are preserved in the names of rivers, mountains, and cities in Norway, Sweden, Germany and Bohemia. In the East, the Indian had his Indra and there is beauty in the Vedic address to him: "He smote Ahi; then he poured forth the waters. He divided the waters of the mountains . . . . Tvashtai forged for him the glorious bolt. May the axe (thunderbolt) appear with the light. May the red one blaze forth with splendor,"[1]

"By the hurricane" keeps alive the days of wind and storm divinities. The Scythians swore by the winds, as the symbol of life, and the Greeks gave them sacrifice, especially when setting out upon a voyage. "Harry Cane" is an antiquated pronunciation of hurricane, incorrectly written.

9. *Forms Suggestive of Astrology.*

Somewhat like the forms of group 8, but having a more limited and personal meaning, are: By the stars of life; my stars or by my stars; bless my stars; and by the stars of Peter.

As oaths, they bind the taker by his destiny, a bond which he is powerless to break. As exclamations, they may be either a complaint at the iron hand of Fate, or an excuse for any unseemly act on the ground that it could not have been otherwise because of an unfavorable position of the planets at the hour of birth.

10. *Oaths in the Name of Classical Divinities.*

By Jupiter, Jove, the holy Jove, Jove and Mars; by Joe; by Zeus, thunder and Mars, Pluto, Jupiter Ammon, the god of love, the god of war, the great gods of war, all the gods; by the Furies, furiation.

Upon the nature and function of the gods named in this group, much has been written by students of mythology.

[1] Tylor: Primitive Culture, Vol. I, p. 265. (From Rig-Veda.)

These phrases have appealed to the fancy of classical scholars, and the method of their adoption seems so apparent that discussion is unnecessary.

"By Joe" is a modification of Jove, due to defective speech or hearing, and in "thunder and Mars" the idea of metonymy appears again.

11. Oaths by Animals, Plants, and their Products.

By beans, turnips, gum, tar; by the duck, goose, hen, hen-roost; by fish, codfish, the holy mackerel, the bones of the shad; by the holy cat, by the dog, by the cabbage; for the love of ham, tripe, shad, mustard; by the golden calf, the golden heifer, the bulls of Bashan.

It may seem difficult to see in these expressions anything that could ever have pertained to worship. They seem to be used as a kind of satire on profanity. But there may be a deeper meaning in them even now than this, and every one is related, at least generically, to something that was once held sacred. Primitive ideas of metempsychosis, the virtue of plant and root in folk-medicine, the wonderful curative properties ascribed to the ordure of animals and birds in ancient times, and the use of everything from buttercups to the skins of fishes, by the magician and the spell-binder, help to explain why they were so much esteemed. The physostigma venosum of Africa, prized as a remedy for diseases of the eye, tetanus, neuralgia, and general nervous affections and also as a means for detecting witches; the nelumbium speciosum, or sacred bean of the Egyptians and the Hindoos; and the fact that the cultivation of a plant gives one such an understanding of its life and habits that it reflects itself in his thoughts and speech, are a ground for "by beans" that makes it more than a jest. So of the "turnip" whose scraped pulp was once highly valued in neuralgia and whose leaf made a cooling dressing. It may have gained esteem because the ranunculus bulbosus was consecrated to St. Anthony and called "St. Anthony's turnip," although not a turnip at all. "By the cabbage," was an oath among the Ionians who are said to have prized it as an antidote for the effects of excessive drinking. There seems little reason for swearing by "codfish," and "holy mackerel," beyond the fisher-folk superstition that sees "luck" in a particular genus or in such species as come at a particularly favorable season. But the malapterurus electricus and the oxyrhynch of the Nile were sacred; the Philistines worshipped Dagon, foreshadowed, perhaps, in Babylon by Odakon;[1] the third person in the first triad of Chaldean divinities was Ea or Hoa (earth) the "Intelligent Fish, Lord of the great Deep."[2] Add to all this the

[1] Brit. and Internat. Cyclos.
[2] Keary: The Dawn of History, p. 193.

traditions of mermaids, marriages of men with fishes,[1] incidents like that in the myth of Jonah, and a legion of others the world over, and the part played by fishes in the racial romancings, philosophizings, and spiritual metamorphoses is no insignificant thing, although most frequently called up in a byword.

The hen, duck, and goose once had a special function in sacrifices. The Greeks sacrificed the cock to Æsculapius; the people of Touraine, to St. Christopher. There are also many legends that give this bird almost a sense of divination as a herald of the Saviour's birth.[2] "By the dog," brings to mind Anubis of Egypt; Sirius of the sky; the Ionian oath; that of Socrates to Polus in the Gorgias; the Eastern custom of shaving the head in mourning for the death of a dog;[3] calling this animal around the couch of the dying to ward off evil spirits; the Arabians and the Seneca Indians sacrificing it to the sun; the belief of the Arctic Indians that their ancestors sprang from the skin of a dog; and the custom of the Norsemen of naming their dogs for their gods. Saxon and Polish hunters and herdsmen had a similar custom, and Bohemians often gave national names to their pets. The "cat," in India, was associated with the moon divinities. In Egypt, it was sacred, and to wound one meant exile if not death. Henty, drawing from the pages of Sir J. G. Wilkinson, gives an interesting account of the relation of this animal to Egyptian life.[4] In recent years, the mummified divinities of former days in the "Cat Cemeteries" at Bubastes have been turned to account as material for fertilizers.

In the Norse mythology,[5] the cat was sacred to Freya, whose car is represented as drawn by kittens. Among the Scandinavians generally, the animal was supposed to possess magical powers. This accounts for the disfavor in which black cats were held. Because of their color they were thought to be attendants upon witches and in league with the devil. The names "old cat," "old black cat," and "old Scratch," or "Scratcher," are relics of this superstition. It is therefore possible that, according to the principle of antithesis, "by the holy cat" is an invocation of the devil. "By the golden calf," and "by the bulls of Bashan," represent the pride of a valley rich in all its resources, and the struggles of a people who had not learned to worship without a visible representation of their divinity. The boast of Bashan[6] was little different from

[1] Rink: Tales and Traditions of the Eskimo, p. 159.
[2] Hamlet, I, 1.
[3] Emerson: Indian Myths, p. 405.
[4] The Cat of Bubastes, p. 165.
[5] Grimm: Teut. Myth, Stallybrass's Tr., Vol. I, 305; III, 669.
[6] Ps. XXII, 12; Amos IV, 1; Is. II, 13; Ezek. XXXIX, 18.

that of a New England farmer over his Shorthorns or Holsteins. On the sacred side, there is in the oath a generic reminder of Hathor; the temple of the Sacred Ox at Tanjoré; Asshur of the Assyrians; Astarte of Canaan and Phœnicia, associated, perhaps, with Ashtoreth, whose worship caused troubles for Israel and lost Solomon his kingdom.

12. Oaths by Figures for Infinite Time, Measure, and Universality.

By time; by Heaven; by heavens and earth; by all the stars; by all the powers that be; by all created things; by all common things; by all the sands of the sea; by all that is good, bad, or indifferent; by fire and water; by all that is holy; sacred; human; dear; wonderful.

These forms represent the struggle after categories. They show an effort of the philosophical consciousness to get something final. Number is the thought apparent in the greater portion of them, and it suggests an interest almost Pythagorean. "By all that is wonderful," opens once more the world of mystery, while the oath by "fire and water" may have survived from the practice of the double ordeal, or have come to us as a reminder of the quest of Thales, Heraclitus, Xenophanes, and others, after the first principles of things.

13 Oaths of Fancy: Alliterative, Rhythmical, Rhyming, and Natural Motor Forms.

I'll be ding dong danged; I'll be spingle spangle spokeyed; by the ripping roaring jumping Jerusalem; by hatchet heads and hammer handles; by Christopher Columbus John Halifax Gentleman; by the hokey flying Jiminy crying turkey chews tobacco; by Jupiter Guy sip and scissors hell and damnation ter blizzers; golly gosh darn deuce devil; darn darn double darn golly gosh and hang it; by the jumping Moses, Jerusalem, Jeremiah, Jehosaphat; by holy Moses jumping Joses; by the jumping Judy; jumping Josey; by Jim tumble shoots; by Jack the giant killer's shawl strap; by the land of the Leal; by the laurel hill.

In this section the fanciful and humorous side of swearing is represented. If the metrical element which appears in some of these forms were more general, a wave theory of profanity would be suggested. These, and a few that will follow, are nearer to a natural form for expressing emotion than most of the forms which have preceded. They show a combination of consonants and a placing of accents; a breaking of long phrases by sectional pauses; an unconscious conformity to the established principles of alliteration; and, in certain cases, a kind of climacteric progression, all of which enable pitch, rate, inflection, force and abruptness to be adapted to the temperamental excitability of the individual and the intensity of the feeling state. These are adolescent phrases, full of evidence of sudden or cumulative fits of emotion and fondness

for force in action. They are partly the result of conditions consciously existing at the moment of utterance, and partly of impressions unconsciously stored up and waiting the command of passion.

Suppose that vowels are natural sounds, somewhat subjective in character, while consonants are the natural elements for interpreting these sounds to others, as Von Meyer[1] and De Vere[2] would indicate; assume further that, as Stoddart says,[3] the shock of deep physical pain is guttural in expression, mental pain, softer and indicated by the resonants, while disgust and aversion bring out the labial and dental elements; if there be added something from Byrne[4] on the sensations of consonantal utterance; something of the onomatopeic idea of the origin of the forms of speech, partially developed by Plato, Leibnitz, and Bacon, strongly urged by Renan, Chavée, Egger, Farrar, Wedgwood, and Whitney, but opposed by Müller, Regnaud, Bréal, and Lefèvre; without drawing upon the more extravagant statements of any of these, it would only be necessary to look to Sayce[5] for the force of analogy in language, and to Guest[6] for some principles of the structure of rhythms, to provide a thorough explanation for the origin of the oaths in the groups of this section, according to psycho-physiological principles.

The formula beginning "Jupiter Guy" is extremely curious. It was the waste-pipe of passion of an old man who stood high in his church. It was learned and used in early life, and in moments when carried away by sudden anger, years after all other forms of oath had been laid aside, this formula proved insistent to the great regret of its user, who was sometimes annoyed by boys simply that they might hear him hurtle forth so novel a combination. It comprises an invocation of a heathen divinity, the name of the swearer, a memorial of a primitive ordeal, a reminder of the burning lake, and a sentence of execration upon the offender.

A few forms seem to partake of some of the characteristics of all the groups. On the whole, however, they appear most nearly allied to the one now being considered. These very common phrases are:

By jiminy, jiminy crackers, crickets, crimps, crinks, scissors, king, Crusoe; by Jim slicker, dickey; by jiggers; by golly nippers; by the boots; by my stars and garters, stars, garters, and blue ribbons, stars and stockin' garters; by the great horn spoon; Svengali, O my golly; O thumpin; by jinks; by jingo; by the living jingo; by jumbo; by

[1] The Organs of Speech.
[2] Comparative Philology.
[3] Glossology.
[4] Principles of the Structure of Language, Vol. I.
[5] Principles of Comparative Philology.
[6] History of English Rhythms.

ginger, gingerbread, guminy, gumstubble, cuss, the heavenly Dick, Judas Crosby, haystacks, tike, the ace of spades; by crotch, crotch hemlocks, scissors, holy scissors, the land of scissors, the holy smut, the holy satchel.

Many of these, aside from a peculiar synthesis of sound elements, seem to have been the result of the broken speech that always springs from quick excitement. That exclamations so produced should grow into oaths, is entirely possible. The process is only that of thinking aloud. A sudden thought arises from a new perception. Instantly the imperative "by" slips from the tongue, and the apperception is ejaculated as an afterthought. Suppose that one becomes suddenly aware of the proximity of the pulex penetrans and knows that it is to be dreaded; By— jiggers! expresses the entire situation. So of jiminy— crackers! crimps! scissors! My— stars and garters! Svengali, O my golly! and others.

"Slicker" is a comparative form of slick, which is a term applied to things done smoothly and easily or rapidly. Hotten says[1] that "dickey" is costermonger for high toned or swell. Another meaning is dull, stupid, foolish. Maitland[2] speaks of its use in the sense of smart, or cunning, in which case it is synonymous with devil. The consonantal elements of "Jim" belong to the same order as those in "damn," and a simple recession of vowels might make the word a veiled term for the latter. Its original use as an exclamation would be intensive. It would be lost, however, when the exclamatory phrase "Jim slicker" or "dickey" became an oath, unless it came into existence as suggested in the preceding paragraph. The origin of "by golly nippers" is probably like that of "by jiggers." There are, however, two possible sources for it. The first makes it an incorrect spelling of gallinipper, an insect in the South said to resemble a monstrous mosquito. Chamberlain says that in Canada the name is given to a "large reptilian insect living under stones and used as bait."[3] On the other hand the expression may be a survival of the "bogie story." Icelandic children early learn of Nykk or Nippen, a kind of devil who seizes people and carries them off on a gray horse which dashes over a precipice with them.[4] "By the boots," is similarly an incorrect spelling for butz. "Der butz," or "der butz kommt," makes the flesh of German children creep. In Switzerland the bootze which drags children away, is probably related to the pöpel, or pöpelmann, of Swabia.[5] "My stars and garters" is thought to be traceable to the "Order of

[1] Slang Dictionary, p. 47. [2] Americanisms, p. 35.
[3] Notes Am. Dialect Soc., Vol. II, 1890, p. 49.
[4] Henderson: Folk Lore of the Northern Countries, p. 272.
[5] Grimm: Teut. Myth., Stallybrass's Tr., pp. 505–508.

the Garter." Its emblems would suggest the phrase, but the true origin is rather to be found in certain wedding customs anciently observed in Britain. Brand refers to these and cites authorities who describe them.[1]

"By the great horn spoon," is probably changed from its original form like many of the other expressions. It is not mentioned in the slang dictionaries. It seems that an old custom in England might account for it. Horns were an emblem of a cuckold. The spoon denotes the beating that followed shrewishness and domestic infidelity. Laws against profane swearing were severe. Offences of the kind referred to were dealt with by the community, and sometimes processions were formed in which a rail was the conveyance for the central figure of dishonor. Brand[2] mentions a picture of a "Humorous Wedding Procession," in which a dummy wearing a huge pair of horns is in the van, while another figure with a ladle follows after with an air of great earnestness. The picture of "Skimington and her Husband," in "Divers Crabtree Lectures," has a similar ethical aspect. If one were living in the Seventeenth century, and were familiar with the spirit of the age, the sudden sight of one of these village processions, or of any of its emblems with indications that they were about to be used would make "By the Great——! Horns and Spoon!" a very natural expression for the emotions of the moment. Another possibility is that the phrase may have come from folk names and traditions of the devil. In Scotland, "Old Harnie," and in the United States, "Old Horns," "Horns and Tail," and the "Old Horned One," are polite figures for a much-worked name. There is also a proverb, "He who sups with the devil must have a long spoon." The implication of this saw is that the devil is thus equipped. The Great Horned's spoon would need little change to give the common oath.

"Thumpin" may be the doubtful adjective "thumping," large; or it may refer to the Scottish sprite Thrumpin, who was feared when the uncanny sounds that are common at the season of the full moon, are heard.

> "When the moon is in the fu'
> When the ellereid are chumpin,
> When the Toweries hard are thumping,
> When the bawkie bird he kisses the yird,
> Then, then's the time for Thrumpin."[3]

"By jinks" has, without doubt, been kept alive in part by the song, "Captain Jenks," but it has an earlier origin. Far-

[1] Popular Antiquities, pp. 127–130.
[2] Popular Antiquities, pp. 181–196.
[3] Henderson: Op. Cit., p. 262.

mer says[1] that it is a shortened form of jingoes or jingo. Maitland:[2] its source is "hi' jinks" a jollification. "To kick high jinks" is a well known phrase in New England. In the poems of James Whitcomb Riley, the form "'y jinks" occurs. This is nearest to the revelling cry, from which the oath probably comes, of any of the forms found in searching for the source of it. Among the Scots in former days when a company of men met in a jolly mood, each of the party was given a number corresponding to the spots on dice, a bank was made, a cup was filled, and that man was to drink whose number came up at the casting of the dice. One was selected to throw the dice and the point of the game turned on his shouting, "Hy Jinks," at the moment of casting them.[3] From this, the source of "by jinks" is apparent. "By jingo" is said by some to have been derived from a phrase used in a song of the Jingo, or Tory party, in 1878. Gaye says[4] that it is connected by some with Shingu, by others with St. Gingoulgh; Mackay,[5] that it is an old Keltic oath from the root "dian" (prim. jian) vengeance, and "gaoth" (prim. go or gu) blast or breath. The "Book of Slang"[6] derives it from jenco (jencoa, gincoa) a Basque name for devil. Maitland[7] refers both to Ingoldsby Legends and to Oldham's "Satires of the Jesuits" (1679), and regards it as derived from St. Gingulphus. De Vere thinks it may have come from "gingko," the name of a sacred tree planted beside temples in China and Japan, and therefore a symbol of divinity.

In "by jumbo" there is more than a reference to the famous elephant of a few years ago. The Mandingoes have a bugbear or devil whose name is Mumbo Jumbo. He is invoked to settle family quarrels. Brand, who describes Jumbo from Park's "Travels in Africa," says that a habit is kept hanging upon a tree at the entrance to a town for him, and that his coming is announced by screams from the woods. When he arrives, offenders are tied to a post and scourged, while others howl in derision.

"Ginger" and "gingerbread" may be allied to jingo, or simply nonsensical forms. The "holy smut" is, perhaps, a variation of the "Old Black One," as the "Heavenly Dick" surely is. "Guminy" and "gumstubble" are akin to jiminy (355); "cuss," probably, is allied to cress;

[1] Slang and its Analogues, Vol. IV, p. 58.
[2] American Slang Dict., p. 140.
[3] Brand: Popular Antiquities, Vol. II, p. 334.
[4] Macmillan's Magazine, Vol. LX, p. 54.
[5] Gentleman's Magazine, Vol. CCLVI, p. 506.
[6] Chatto and Windus: Bk. of Slang, p. 136.
[7] American Slang Dictionary, p. 155.

"crotch," like the words crook, crouch, and crosier, possibly to cross; or it may be a verbal preservation of an ancient ceremonial oath; "Judas Crosby" is quite likely to represent somebody's estimate of a local character whom the first part of the oath chanced to fit; "scissors" may allude to the ordeal of the shears, or to traditions going back to Atropos and the Fatal Sisters; "tike" may be either dog or devil. The name "little tike" is sometimes given by elderly people to children as a term of endearment. The meaning is "mischievous little dog." "Big Tike" is a name given by workmen to an overbearing boss.[1] In this sense it is perhaps a syncopation of Tycoon. "Holy satchel" suggests no association to the writer.

In several of the preceding sections, various names for the devil have come to view. That oaths which are yet to follow may be more readily traced, a few names gathered from the pages of Grimm[2] are given. These show the great hold of the idea of an evil personality upon the imagination of all races. "The devil is Jewish, Christian, Heathen, a false god, an elf, a giant, and a spectre all in one." In the Greek he is διάβολος; A. S., deofol; Icelandic, dyöfull; Dan., dyövel; O. G. tieval; Mod. G., teufel; It., diavolo; Sp., diablo; Fr., diable. The softened terms of the German are: deichl, deigl, deiker, deuker; the French, deacre; English, divil, deevle, Satan, the Old Gentleman, the Old Boy. Some of the epithets are derived from his nature: Antiquus hostilis, odiosus, hatola, craftig fiund, the evil one, vâlant or fâlant (an erring, deceiver). He is also der Alte, crooked, hateful. Some of his animal names are: black horse, he goat, lupus vorax, hellehund, hellenwulf, hellewurm, letifer anguis, draco, vilde ravn, the cuckoo, vulture, and βαάλ μῦια, which gives new meaning to the slang phrase "get fly." Other names are: Mirki, tenebrosus, hinke-bein, helleyager, the dicer (lying in wait for gamblers) or Schenzerlein, Malleus, and in the Beowulf, gastbona, or soul-killer. Scrat or schretel is an elfish spirit defined by Grimm as "ein Geist von Helle." The study of the syllabi gives

14. Oaths in the Name of the Devil.

By the devil, Lucifer, the great Salamander, the mischief, the old demon, old evil one, tempter, father of lies, old driver, old toaster, old serpent, old white horse, old cat, old black sheep, the old poger, porgy, the old Harry, lord Harry, Jim Crow, and the "devil and Tom Walker." A few forms name the world over which he is supposed to preside; by hell, the dash I, fire and brimstone, blue blazes, holy horrors, hell and brimstone; by the scorches, hallelujah, hail Columbia, hades and sheol.

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[1] Maitland: Americanisms.
[2] Op. Cit., pp. 988–1030.

These forms are so clear as metonymies that they may be passed without further notice, excepting "old Harry" which is less probably derived from the verb "harrie" than from "hairy," referring to the shaggy coat of the goat by which the devil was often represented in pictures. "The devil and Tom Walker" is said by Barrere and Leland[1] to have been derived from a story of a man who sold himself to the devil. The story was published in Boston in 1832.

15. Denunciatory Oaths.

Blame it, blast it, blast you, your buttons, picture, tintype, bang it, bust it, blow it, bother it, bother the luck of a Chinese laundryman, confound it, cuss it, curse it, dumb it, dumb the dumbfounded thing, damn it, da'n it, dang it, dem it, ding it, durn it, dom it, blank it, dash it, God damn it, God dom it, Godonit, goramit, damn your eyes, buttons, picture, devil jump it, devil burn it, gosh hang it, gosh dumb it, hang it, gol darn it, hang the bloody thing, fury smash it, dog gone it, bugs eat you, deuce take you, plague on it, 'od rot it, drat it, dod rot it, drat the luck, go to glory, ——l, perdition, hades, Guinea, Halifax, Jericno, go shovel smoke, you be damned, go to the deuce, to the devil.

"Blast" and "blow" are said to be of military origin. The idea of violence that shall bruise or rend is prominent as it also is in "bang" and "bust" (burst). "Devil jump it" means seize it eagerly and vindictively. "Deuce" is for devil. It was given by the Normans to the Saxons in the form "deus" and is so preserved in English romances of the Fourteenth century. It comes from the same root as the word for God. "Dickens" is a synonym for devil.[3] "Plague take it," "drat it" (God rot it), and similar expressions are medieval forms that still find a use. They may be traced, however, to old prayers of execration, like those of the Iliad, or, in some cases, to superstitions, like those connected with ordeals in the class of the "water of truth." "Glory," is used for its antonym. Barrere and Leland ascribe "go to Jericho" to the days of Henry VIII. The monarch had a house in the Manor of Blackmere. It was called Jericho. Callers for the king at any time when he chanced to be dissipating were told that he had gone to Jericho.[4] "Bugs eat you," may be a literal expression, but it is more probably a perversion of "butz" sometimes spelled buz or budde.[5] "Halifax" and "Guinea" are to save a harsher term. In this country, the former was popular as a Revolutionary expression. It probably sprang from a proverb in the vagabond's litany of England. At Hull, va-

[1] Slang, Jargon, and Cant.
[2] Sharman: History of Swearing, p. 167.
[3] Barrere and Leland: Slang, Jargon, and Cant.
[4] Barrere and Leland: Slang, Jargon, and Cant, p. 496.
[5] See II, 11, 13, p. 369.

grants were whipped and put in the stocks; at Halifax, for stealing, they were beheaded with an engine called a Maiden. It is easy to see how in other English towns, men might take pleasure in directing outcasts to these places, and since, from a theological view, one on the road to either was eventually bound for the third place, the proverb, "From Hell, Hull, and Halifax deliver me" was very natural. Hence the association of "Halifax" in denunciation.

16. Self Deprecatory Oaths.

I'll be blamed, banged, bamboozled, blest, blasted, burned, busted, damned, darned, dinged, danged, doggoned, to damnation, darnation, tarnation, timenation; dad fetched, dad binged, dad snatched, dod gasted; chewed up, cow kicked, cow switched, cussed, cursed; flogged, dol garned, gol darned, gil dinged to Guinea, hanged, hanged to Guinea, Joe dad swizzled, Joe ding swizzled, kissed to death, teetotally kicked, eternally switch-backed, jiggered, hornswoggled, redeemed, smeared, smashed, switched, swizzled, sniggered, twisted, razzle-dazzled, hornswoggled gol darned, ground up and smashed, whang-doodled, flusticated, flambergasted, eternally sizzled, diddledy dog-gone, I'll have the rickets.

All phrases of which the leading term has appeared in other sections will be passed over. "Bamboozled" has a meaning like the French, passer des curettes, monter une gaffe, juiffer, pigeonner, être l'autre, and the Italian dar la stolfa. It is to buncoe, gammon, blind the eyes, "pull wool over the eyes," or cheat in any sharp way. Farmer, mentioning Bouchier, Leland, and Wedgwood, says: "Philologists are all at sea concerning its origin. It may be of Cant or Gypsy lineage. Perhaps it is an imitation of the Italian bambolare, to blind the sight."[1]

Maitland[2] says that "hornswoggle" is similar to bamboozle. With others, he associates it with "skullduggery," cheating or deceiving by wiles. It is probably a compound and requires little variation of "Horns," one of the epithets for the devil, and the verb "waggle," which, as a slang term, means to beat, overcome, get the mastery of, yield the slang form. To be "hornswoggled," then, would be to be cheated or ensnared as craftily as the devil could do it. "Darned" is a velvet finish for damned. "Dod," requires only a recession of the initial consonant to be roundly profane. "Dad fetched" means summoned before God; "dad snatched," taken without warning; "dod gasted," transfixed with terror; and "dad binged," struck in a heap. "Switched" and "swished" may mean the same as flogged, but in the vocabulary of railroad men, to

[1] Slang and its Analogues.
[2] Americanisms, p. 144.

be "switched" is to be married.[1] To be "swizzled" is to be drunk; "Jim swizzled," excessively so. "Dol garned" and "dog gone" are plain in meaning. Their form is like the "Medical Greek" of London medical students, who "poke a smipe" instead of smoking a pipe, and take a "stint of pout" for a pint of stout.[2] To be "switchbacked" is to make many windings without getting ahead. "Redeemed," in phrases of this kind, is exactly opposed to its usual meaning. "Jiggered" belongs to a later section. "Sniggered"[3] is said to be allied to jiggered, but no one explains "razzle dazzled" or "whangdoodled." Hotten[4] makes "flusticated" a misunderstood form of obfuscated, a word for the state of intoxication. He thinks "flambergasted" a corruption of flabbergasted, to be overcome with confusion.

17. Exclamations most of which once contained an Invocation, Oath, or Prayer.

Mercy, merciful goodness, merciful heavens, bless us, God bless us, O goodness, goodness Godness, good gad, good gid, good gosh, mon Dieu, mein Gott, O dear, dear me, O Lord, good Lord, goody Lordy, O hell, heaven, Halifax, O the deuce, devil, divil, nevil (a girl's word), merciful heavens, good Lord deliver us, saints preserve us, saints defend us, heaven help us, my gracious, O gracious, good gracious, bless me, bless us, bless my soul, bless your heart, bless your gizzard, bless and save us, O save us, mercy on us, land o' massy (mercy), Lor' bless you, laws (Lord) 'a mercy, O mighty, my land, my patience, my conscience, great guns and heavy shooting, great Cæsar, great Scott, mowly hoses, heavens to Betsey, heavens to Betsey and eight hands around, Peteration, forevermore, me O my, meo mihi me, my senses, O fiddle, fiddlesticks, O papa, mamma, Maud, Mike, Peter, Harry, Isaac, ginger blue, zounds, riggerty giggerty, lumbolga, lawk, lawzy, pshaw, humph.

Excepting the last dozen and a half, which are simple exclamations, there is in nearly all these examples an invocation of the power of the Invisible, either as pan-spiritual, as concealed force, or as God. In the terms "mercy," "gracious," "heavens," "bless us," and others, there is an address to something. If it were not so, the act of utterance in its inception would have been purposeless. The something to which the feelings flow with the changing moments, is a something worshipped in the moments of certainty and trust and rest. Expand these abridged terms, and "mercy" becomes "Have mercy on me;" "gracious," "Be gracious unto us," and "heavens," an appeal to the same personality through metonymy. In "O dear" is the "O dieu" of another tongue; in

[1] Am. Jour. Folk Lore, p. 305.
[2] Maitland: Op. Cit., p. 176.
[3] Chatto and Windus: Dict. Slang.
[4] Book of Slang, p. 64.

"dear me," the "Dio mio" of the Italian. "Good gosh" is a contracted form of the "good God's flesh." Like "great Cæsar," great Scott" may refer to a famous general, as De Vere says; but the origin is probably farther back than the life of the man to whose name he traces it. Mackay derives it from God.[1] It might be formed from some phrase like "great is God," but the most probable derivation is an outgrowth of an old legal practice of collecting levies from royal subjects. This tax was called a "scot." The term came to be used for anything raised by contribution. Its etymology makes it mean anything "shot" or "thrown." "Great Scot" would be a fitting sarcasm for a disappointing tax or collection and, fervently uttered, would be sure to get a footing among exclamations. "To go scot-free" is a familiar phrase that tends to support such a derivation. "Heavens to Betsey" is an entirely obscure, though very common phrase. "Forevermore," seems like the clinging ideas of insanity. Is it the result of the audible thinking of some one touched by the idea of the irrevocable nature of action and the unalterable laws of cause and effect? "Lumbolga" may be some one's mistaken "lumbago," perpetuated because such blunders are always ludicrous. "Sockdolager" for doxology, and "shicoonery" for chicanery, are illustrations in the same class. "Zounds" is for "His wounds."

A few other exclamatory phrases convey the idea both of surprise and of incredulity. The origin of each is apparent.

Great Scott and little fishes; great Scott and little fish-hooks; great Scott and loaves of bread; ye gods and loaves of bread; great gods and little fishes; great guns and little fishes; great guns and little pistols; Jonah and the whale; great Cæsar's gunboats; and Moses in the bulrushes.

18. Oaths by Suggestion.

By G——; by the Gracious ——; by the Great ——; by the ——; by ——; by the dash 1; blank it; dash it; by the Holy; so help me —— so help me Great ——.

These all represent the "reticentia" of Cicero; the "aposiopesis" of the Greek rhetorician. They, like all softened forms, have a more marked effect upon a listener and are more likely to be imitated than the rougher oaths. Having occurred in other lists they do not enter into the total number of forms as a separate class.

In various groups certain forms have been passed over for later treatment. 31 expressions have been kept alive, perhaps by tropical sex names and phallic symbolism. Like Turkish blasphemy, our profanity and our slang have shadowy chapters. The expressions which follow belong to one of those chapters:

[1] Blackwood's Magazine, Vol. CXLIII, p. 696.

By the dog, the holy cat, the cabbage, the cuckoo, the great clouds, beeswax, the holy mackerel, codfish, the ace of spades, the scabbard of my sword, heaven, hell, the world of shades, Job, St. Patrick, gewhitaker and the North Pole, by the holy altar, all souls, all the saints, the mother of all the saints, jucks, the love of the church, fiddle, fiddlesticks, I'll bet a cooky, for the love of fish, tripe, ham, I'll be dinged, I'll be jiggered.

This group has been isolated after a careful comparison with Farmer's lists. It is a mystery how such forms get into good society. It is safe to say that their origin and associations are unknown and unthought of. Perhaps it is not always wise, even for the sake of proficiency in current slang, to adopt, without examination, terms that a respectable lexicographer would hardly define for general reference.

III. The Attitude of Society toward Profanity.

This form of swearing was once fashionable. Count de Noé, Dean Ramsay, and Sarah of Marlborough were famous swearers. Elizabeth did not always bridle her tongue, and Shakespeare reflects the sentiment of the time nicely in "He writes brave verses, speaks brave words, swears brave oaths" (As You Like It, III, 1.); and "God mend me and by all pretty oaths that are not dangerous," (Act IV, 1). Chesterfield also discussed the problem and made nice distinctions as to what a gentleman might use with propriety.

But this does not represent the feeling of the ages. Laws against swearing have stood on the statute books ever since courts were organized. Justinian put to death those who swore by the limbs of God.[1] Donald VI and Kenneth II cut out the tongues of the profane. Philip II drowned swearers in the Seine. The Council of Constantinople excommunicated such as "swore heathen oaths." Henry I, William and Mary, Mary Queen of the Scots, and George II of England had statutes forbidding it. With the first, the penalty was 40 shillings for a duke, 20 for a baron, 10 for a squire, and 3 for a yeoman. Boys were whipped for the offense. In 1645 the Scotch Parliament made cursing a parent punishable with death. In 1650 it disqualified swearers from being officers in the army. Scotch Presbyterians of the Sixteenth century kept "palmers" for the offender, or provided boxes not unlike our penny banks for collecting fines. Both these were looked after by the head of each household. The Blue Laws of Connecticut did not forget to provide against profanity. The Puritans had a provision that actors should not swear on the stage.[2] State laws provide penalties for it. In Pennsylvania and Indiana, any

[1] Sharman: Hist. of Swearing, p. 31. (From Mezeray.)
[2] Sharman: Op. Cit., p. 125.

words importing an imprecation of future, divine vengeance, may constitute profane cursing. Public swearing generally, is indictable as a nuisance. It need not be continued longer than five minutes to give a case, and, in New York and Connecticut, drunkenness does not constitute a defense.

Three hundred and sixty-eight young people tried to tell why they use the common forms of ejaculation noted in the foregoing pages: 3, "must" swear; 7, have no reason; 30, do it "to be witty or smart;" 32, to "give vent to their feelings;" 32, "from pure imitation;" 68, to "seem emphatic;" 177, because "it is a habit and they do not think;" and 19 give "carelessness" as the reason.

Of 504 who gave an opinion as to the effect of the common use of such expressions upon the instinct for truth, 22 regard a trivial oath as amusing; 28, as without effect upon truth; 23, say that one may be more readily believed when he swears to a thing; 202, that swearing is positively against truthfulness; and 229, that it is an arch enemy to a broad vocabulary and exact expression.

IV. The Function and Significance of Swearing and Exclamation.

A careful study of the 700 different oath-forms here presented results in placing the approximate origin of 9 per cent. of them in animism or feeling for objects in nature; 15 per cent. in exclamations, many of which have sprung from old folk-customs; 8 per cent. in psycho-physiological impulses naturally expressed; 6 per cent. in legal and business terms; 2 per cent. in the instinct for humor; and 60 per cent. in the evolution of the idea of religious dualism. One-third of the last group are denunciatory.

In these expressions are traces of the spirit of the past. They reveal, as the lesson of the ages, the fact that the God-idea is the most imperative that stirs the hearts of men.

In the evolution of society, this idea was formulated into an objective bond—the oath. This bond was designed for the protection and advancement of the race. It gave individual instinct a more ultimate purpose than expression for its own sake. In order to attain that purpose, inhibition of the personal impulse became necessary. But the drafting away of feeling-energy into more definitely puposive channels did not obliterate the old lines of reaction. Therefore swearing became an automatism.

There are persons who declare that one feels better if, after pounding his fingers or sitting on a tack, he rips out an oath. This may be true of the individual who makes the statement, but it is not necessarily true as a principle. Under any given

set of conditions, a man feels better for going to the usual limit of his actions under similar conditions. This, however, is because habit is the line of least resistance. It does not follow that the customary action is more natural or more beneficial than a different course in another direction, or even than the inhibition of all action.

Some of the contributors to the study swear "to relieve their feelings." If the Lange-James theory of emotion be true, instead of relieving the feelings and saving violence, oaths may be pitch upon the flames of passion, the preparation that makes the blow possible. The more cautious animals work up to combat in a vocal way, and schoolboys rarely come to blows until after the swearing stage is well begun. It is at least as reasonable that one grows more angry because he swears, as that he swears because he is angry.

There is also a feeling among physicians that much bodily and mental ill-being results from a state of emotional excitement due to extravagant expression. In an address on "Emotional Prodigality," C. Fayette Taylor, M.D., sets this forth with clearness and force. If it be true that growth is retarded by feeling thus aroused, and that sthenic conditions are replaced by neurasthenic, in consequence of giving expression to such feeling, there can be little economy in swearing, for either physical or psychical well being.

The general results of this study of common oaths and exclamations give no assurance of anything useful in profanity. It is a kind of slag left over after the vital element of the oath has been utilized by civil law. It is a menace to the sacredness of the oath in court. Severe penalties on the statute books discountenance it. The consensus of past opinion is against it. Intelligent teachers and students pronounce it hostile to truth and unfavorable to the highest culture in language. It does violence to the highest canons and codes which society has fashioned as a guide for human conduct. If it be objected that these standards are artificial, it must be remembered that this is true of everything called human naturalness. Every step forward has resulted from the elimination of acts and impulses that the race consciousness has pronounced undesirable, and the sum total of human progress has grown out of an inhibition in many lines, as complete as that which would result from literally following the injunction, "Swear" (idly) "not at all."

I wish to acknowledge the great assistance of President Hall and the lecturers of the Departments of Psychology, Pedagogy, and Anthropology, in preparing this paper. The work has been made much easier by the courteous aid of Mr. Wilson, the University Librarian, the assistants of the Worcester Public Library, and Miss Mason, of the

Worcester County Law Library. I also gladly acknowledge the co-operation of the 2,263 writers of returns in answer to our syllabus, whose papers came from the hands of: Dr. A. Thos. Smith, West Chester, Pa. N. S.; Miss Williams, Trenton, N. J. N. S.; Mr. Purington, Farmington, Me. N. S.; Mr. Richardson, Castine, Me. N. S.; Mr. Phenix, Willimantic, Conn. N. S.; Miss Finch, Lewiston, Me. Tr. S.; Mr. Harthorn, Wilton, Me. Acad.; Mr. Wiley, Norway, Me. H. S.; Miss Robinson, Bangor, Me. H. S.; Mr. Hanson, Worcester, Eng. H. S.; Mr. Small, Washington Acad., E. Machias, Me.; Mr. Pike, Paris, Me. Acad.; Prof. Roberts, Colby Univ.; Miss Robbins, Friends' School, Phil.; Mr. Daggett, Lewiston, Me. Gr. S.; Messrs. Tuttle and Wentworth, and Miss Jones, Westbrook, Me. Gr. Schools; Miss Randolph, Miss Nicoll, and Rev. Grant Person, N. Y.; Mrs. H. H. Goddard, Worcester; Miss Mix, Worcester; Miss Ella L. Smith, Worcester; Misses Dwinal, Bumpus, Maxwell, and Hanson, Mechanic Falls, Me.; Mr. Gould, Greenville, Me.; Miss A. Lund, Worcester; Rev. C. H. Hustis, Barrington, Nova Scotia; Messrs. French and Ferry, and the members of Dr. Hall's Seminary, Clark University; Miss Ferrell, Missouri; Miss Payne, Hinsdale, Ill.; Miss Alice Chapin, Salt Lake City; Miss Hultman, Crow Creek Agency, S. Dak.; Harry Wilson, Worcester; Miss Rust, Kindergarten Tr. S., Worcester; Miss Meadowcroft, Haverhill; Dr. Edmund, Lowell Tr. S.; Miss Wheelock, Boston; J. Thos. Hall, Honey Grove, Texas.

M. H. S.

TRUANCY AS RELATED TO THE MIGRATING INSTINCT.

By LINUS W. KLINE, Clark University.

CHAPTER I.

INTRODUCTORY.

Aside from psychological interests truancy has some very important pedagogical and sociological aspects. Attendance and attention of the first order are probably the most serious factors to be successfully met by the practical teacher. It is becoming recognized more and more that the realization of these two coveted prizes of practical pedagogy depend primarily on a physical and sociological basis.

Morrison[1] says: "That biological conditions are directly and indirectly important factors in determining the course of human action." Richardson,[2] in speaking of felicity (well being) as a physiological quality, says: "Of the two living natures with which man is endowed and which distinguishes him from the lower creatures—the pure animal and the pure intellectual natures—felicity belongs to the animal nature. . . . . The center of the emotions of felicity (well being) is in the vital nervous system, in the great ganglia of the sympathetics lying . . . . in the cavities of the body itself, near the stomach and the heart."

Dawson[3] says: "The first elements to be noticed in the early surroundings of these delinquent children are the poverty and improvidence of the parents." These citations indicate the general considerations that have influenced the present investigation—*the biological, the physical and the sociological.*

BIOLOGICAL.

Differentiation in psychic qualities are believed more and more to take place simultaneously with differentiation in form and activities of the animal. A study of the forces which cause the latter may aid in the interpretation of the former process. The chief of these forces are recognized to be food, temperature, and sociological.

Probably the most vital connection between food and organic life is seen in the influence that nutrition has in determining the sex of the animal. Herr Yung[4] has shown that, if tadpoles be fed beef, the proportion of female to male will be raised from 46 male and 54 female (the proportions existing in nature) to the proportion of male 22 to female 78; if they are fed on fish the proportion is 19 male and 81 female, and if they are given in abundance the sciatic muscle of frogs the predisposition to the female is 92 as against 8 for the male.

Moleschott[5] begins the first sentence in his work on Materials for Nutrition by saying: "That the wild cat became a house cat through the influence of food."

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[1] Morrison: Juvenile Crime.
[2] Richardson: Common Health, pp. 290–92.
[3] Dawson: A Study in Youthful Degeneracy. PEDAGOGICAL SEMINARY, Vol. IV, No. 2.
[4] Yung Arch. des Sci. Phys. et Nat., Vol. XIV, pp. 502–22, 1885.
[5] Moleschott: Lehre der Nahrungsmittel.

The tamer of wild animals knows the secret power of food in allaying the ferocity of his beasts. It is said that the peculiar quality of tone of certain song birds depends on the kind of food given them. Esau lost his birthright through the hunger of his father. Buckle[1] calls attention to statistics, showing that the percentages of marriages in England fluctuate with the price of corn. But food material is only one factor essential to the animal's well being. Temperature imposes certain conditions on the effectiveness of food. Kerner,[2] describing the effect of heat on plant growth, says: "Without this there is no growth. It has been shown that the decrease of young herbaceous plants in two successive days had sunk, in consequence of a sudden storm and visitation of cold, from 8cm to ½cm. There is no doubt that such a decrease of growth stands in causal connection with the fall of temperature, and also that quick growth is to be laid to the account of a rapid increase of heat." In fact, growth is a consumption of free heat. Light is essential in forming constructive material, but heat is essential to put it into *form*, to *organize* it.

To prevent the radiation of heat by night that they have gained during the day, many flower buds are pendulous, bell-shaped and tubular, or leaves become arched in the shape of a dome, cap or umbrella, above the stamens or pistils, in which case inner portions of such flowers are hidden as in a niche. In these hidden nooks they are comparatively well protected against loss of heat, and at least no radiation of warmth towards the night sky proceeds from the anthers and stigmas. The air in the pendulous bell flower is 1 to 2 degrees warmer in the morning, before sunrise, than the surrounding air. In many instances the flower buds and young flowers only assume an inverted position periodically, *i. e.*, only when a cold night is to be expected. The falling of the umbel of the carrot at night, and assuming an erect position at the rising of the morning sun, is an example of the movements of plants in obedience to temperature.

Stahl[3] has shown that myxomycetes when placed on a piece of filter paper, one end of which was immersed in a glass beaker of water of 7°c, and the other end in a beaker of water of 30°c, that they at once migrated to the beaker of the higher temperature.

Mendelssohn[4] has found that the unicellular organism (paramaecia) is positive thermotropic for certain temperatures and negative for others. He discovered their optimum to be from 24°c–28°c. He shows that if they be kept in a temperature from 36°–38°c from 4–6 hours, and then placed in a rectangular vessel whose end temperatures are 24°c–36°c respectively, they will occupy a position corresponding to 30°c–32°c. If the temperature be *suddenly* raised, they reach their optimum at 24°c, but if it be raised slowly, their optimum can be raised to 32°c. Thus these unicellular organisms can be acclimated to different temperatures if given time. The inner molecular and chemical changes very probably need time in which to alter the rate and quality of their activities to suit the new condition imposed upon the cell. Can it be demonstrated that a disturbance, or an alteration in the equilibrium and constancy of external forces affecting the organism is accompanied or stands in causal connection with physico-chemical changes of the organism. Do these external changes alter the metabolic processes, and if so, what is the significance of the alteration.

The writer addressed these propositions to tadpoles. It was found that they are negative thermotropic for temperatures above 24° and

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[1] Buckle: History of Civilization, Vol. I, Pt. 2.
[2] Kerner. Anton Von Marilaun: Nat. His. of Plants. Trans. by Oliver.
[3] Botanisch, Zeitung, 1884.
[4] Pflüger: Archiv für die ges. Phys. Bd. 60, 1895.

positive at temperatures below 18°c, and that their optimum was between 19°c and 23°c. Having determined the temperature in which the tadpole appears satisfied and is at complete harmony with its environment, so far as temperature is concerned, the next step was to ascertain the quantitative difference, if any, between the metabolism of tadpoles at their optimum temperature and at temperatures above and below the optimum. As far back as 1795, Lavoiser showed that the absorption of oxygen and the production of carbon dioxide were among the chief processes of life. Later investigators, as Regnault [1] and Reiset in 1849, Colosanti[2] 1877, and Chapman[3] and Burbaker in 1891, have found an intimate relationship between the ingress of the one and the egress of the other.

Colosanti, for instance, found that in the guinea-pig the relation by weight between the discharge of carbon dioxide and the absorption of oxygen is always the same. The guinea-pigs were exposed to temperatures ranging all the way from 5.5°c to 22°c, and in every case the quantitative relationship between the two was constant. This relationship between the weight of the oxygen absorbed and the weight of the oxygen in the carbon dioxide produced is termed the respiratory quotient. Richet,[4] Grüber[5] and others show, however, that the quotient is not constant, but varies to some extent on account of food, external and internal temperature, age, time of day, muscular activity and the species, being higher in warm blooded than in cold; but these variations are not serious enough to prevent an inference as to the intensity of the one when the other is given or known with reference to a given species, in which case the quotient does not vary over 5 to 10 in a 100. In general, then, by knowing the respiratory quotient for any species, and one factor, the other is readily determined.

Physiology teaches that oxygen is used in breaking up the complex food received by an organism into simpler elements, and thus prepares it to form new and more highly complex combinations. In short, oxygen is concerned with the integrating, the anabolic process. On the other hand carbon dioxide is one of the several disintegrating or katabolic products. These two constituents are not only always present in metabolic processes, but are of such prime importance to the process that a quantitative determination of either or both is a fair measure of metabolism itself. In the present investigation the amount of carbon dioxide produced under given conditions is selected as that measure. It is not the purpose to determine the absolute amount of metabolism, such a task is beyond present laboratory methods. The object here is to estimate the relative amount at different temperatures and regard these quantities as merely indices to what the absolute quantity may be at a given temperature.[6]

The results of the experiment show that a maximum amount of carbon dioxide is produced at the optimum temperature, and that the amounts decrease for temperatures above and below the optimum, and further that the fall is much more rapid toward the lower temperatures than toward the higher ones. If, then, the production of CO^2. is

[1] Regnault et Reiset: Recherches chimiques sur la respiration des Animaux des diverses classes. Annales de Chimie et Physique, pp. 299 et seq., 3me Ser., Tome XXVI, 1849.

[2] Colosanti: Ueber den Einfluss der umgebenden Temperatur auf den Stoffwechsel der Warmlbütes; Pflüg arch. Vol XIV, pp. 92, 469, 1877

[3] Chapman and Brubaker: Proc. Acad. Nat. Sci. Phil. Jan., 1891.

[4] Richet: Comptes Rendus, Vol. CVI, 1888, pp. 496–498, also Archiv. de Phys. Normale et Path: Vol. XXII, pp. 17–30.

[5] Gruber: Zeitschrift f. Biologie, Vol. XXVIII, 1891, pp. 466–91.

[6] Methods, the many corrections, and precautions, etc., incident to such an investigation are here omitted, since they are quite apart from the main article. They are inserted in a paper on "Migrations vs. Love of Home."

a fair index of the amount of metabolism in an organism, the conclusion of the present experiment is that *for this species* of embryos maximum metabolism is coincident and very probably a function of optimum temperature.

The next question of importance here, is what effect has maximum metabolism on the tadpole as a whole. Is well-being in this case a function of rapid metabolism? Does the tadpole select its particular temperature in obedience to some inherent or attractive force that the water may have at 19°–23°c? Are they drawn to it as iron filings to a magnet, a moth to a bright light, or a horse to a hot fire? Or may it not be that the forces of evolution have evolved in this creature a molecular and chemical constitution of such a pitch, vibration or rhythm that it requires just the stimulus offered by this particular temperature to set the molecular and chemical activities agoing throughout the organism at that rate or pitch which natural selection has determined?

It is generally conceded that the conditions that produce growth are conducive to well-being. In fact we are accustomed to think that well-being conditions growth. If, then, the optimum temperature of the tadpole is one of well-being rather than a kind of an inherent spell-bound attractive force, the growth at that temperature ought to exceed that of temperatures above and below the optimum. This likewise was put to the test by an experiment. It was found that 10 tadpoles enjoying their optimum temperature kept constant, gained in two months 11.2 gr. in weight and .77 cm. in length, while 10 tadpoles subjected to a temperature 6°–8°c lower than the optimum, gained in the same time with same food, same shape and size of vessel, etc., 8.5 gr. in weight and .6 cm. in length.

Summing up the relations of temperature to organic life, as shown by these experiments, it is found, first, that plants alter their structure and go through periodic movements that they may keep a more constant temperature; second, that the unicellular organism, paramaecia, is both positive and negativs thermotropic, and that they have an optimum temperature; third, that tadpoles are both positive and negative thermotropic and that they have an optimum between 19°c—23°c; and fourth, that maximum metabolism and the growth of tadpoles are functions of their optimum temperature.

What bearing have these facts on truancy? Do they not justify the assumption that every creature has been keyed, as it were, to a certain rate or pitch of metabolism, which rate has been fixed by natural selection and that its maintenance is essential to the creatures' well-being? It is the animals' power of nutrition. This rate of metabolism demands certain external stimuli in the way of food, temperature, light, etc.

An excess or a denial of an adequate amount of the stimuli is a direct cause of molecular and chemical changes which destroys the well-being of the organism. To regain the condition and sense of well being, the metabolic processes must either be keyed to a different rate, one in harmony with the new condition, or else it must seek an environment in which stimulus and food supply are proportional to the normal rate of the metabolism. According to the theories of differentiation both have been employed ever since life began, the former laying the foundations of morphology and the latter of more complex physiological processes. But of the two, *i. e.*, change of *structure* or *position*, the latter is more often the cheaper. Movement, therefore, is a universal mode, excepting parasitic life, by which organisms restore the stimulus essential to their well-being, be it temperature, food, light, pressure, or what not.

It is the universal mode by which organisms relieve the manifold

strains and stresses that are created by the forces that continually affect all life.

Starting with this general biological conception as a sort of background, the truant problem is further approached through child study, which is the subject of the next chapter.

CHAPTER II.

Child Study.

Runaways.

The data for this study consisted of answers given to rubrics I and III of Syllabus III, 1896–97. Migrations, Tramps, Truancy, Running Away, etc., vs. Love of Home.

Q. I. Consider whether you know any small child with a propensity to run away; and if so, describe the circumstances — why, when, where it went, whether alone, and planned or impulsively, and all the details and incidents of each case; its adventures, how it was found, whether deterred later by its experiences, at what age this disposition appeared and when it ceased, and why.

Q. III. Describe any case of truancy from school or church, its motives, traits of the child, mode of concealment.

In each case specify each of the following points: 1, age; 2, sex; 3, nationality; 4, occupation of parents; 5, are one or both living? 6, do they own their homes? 7, are their food and clothes good? 8, plays; 9, books; 10, pin-money; 11, affections; 12, has the child any physical defects? 13, is it oldest, youngest, or only child? 14, is it quick-tempered? 15, sensitive; 16, demonstrative; 17, laugh and cry easily; 18, cheerful; 19, active; 20, generous; 21, fond of playmates or reticent and inclined to be alone; 22, does it seek to govern others and does it obey readily? 23, love or shun crowds; 24, or dark; 25, animals; 26, deep water: 27, out-of-door life, fondness for woods, fields, etc.; 28, does it love music; does it dance? 29, a good color sense; 30, is it careless or tidy and dressy? 31, has it had pets, is it good to animals? 32, careful of property; 33, and of others' rights; 34, made a collection of things; 35, is it persistent in carrying out tasks? 36, is it inquisitive and talkative? 37, were there ample opportunities for taking exercise, were games and sports encouraged? 38, was there plenty of physical and manual labor at home? 39, must there have been long hours of sedentary work at home and in school? 40, *always specify the season of the year of every incident, if possible;* 41, was there immoderate love of sight-seeing, being out evenings, camping out, hunting, excursions, picnics, etc.

Kindly send your answers to

G. STANLEY HALL,
or L. W. KLINE.

Clark University,
Worcester, Mass., Oct. 26th, 1896.

Section I. 250 returns were received in answer to rubric I. Twenty-five per cent. of the cases are females. Eighty-five per cent. are Americans, the rest are Irish, French, Scotch, German, etc.

Homes. By far the majority of their parents belong to the comfortable living class, though running away occurs alike amidst extreme poverty and much affluence.

Physical Defects. Sixteen per cent. were physically defective—mostly in speech, spine and hip trouble.

Oldest, Youngest, and Only Child. Seventy-nine per cent. belong to the oldest, youngest, or only child group. Of the 21% not in this

group, 11% are either the only boy or girl in a large family numbering from 8 to 10 children; so that only 10% of the cases escape suspicion from their numerical relation in the family. This subject will receive some consideration in the analysis of the next rubric.

Disposition. They are usually reported as demonstrative, sociable, loving crowds and outdoor life, very active, restless, impatient of restraint, and having but few fears. They are very careless and untidy in dress. The majority have made no collection of toys, playthings and the like, common to children. They are destructive of property, some take a peculiar delight in destroying anything that falls within their power. These are likewise cruel to animals.

Seventy-six per cent. are persistent in whatever task they undertake. Of those not persistent 50% were never cured of running away. They did things by fits and starts, would work real hard a few days and loaf as many weeks. They were sent to reform schools, some to prison, others became professional tramps. This class, *i. e.*, those who do work by fits and jerks, forms 20% of the whole number that were not cured by home management.

Havelock Ellis,[1] referring to the paternal ancestor of the famous Jukes family, says: "He is described as living the life of a backwoodsman, a hunter and fisher, a hard drinker, jolly and companionable, averse to steady toil, working by fits and starts. This intermittent work is characteristic of that primitive mode of life led among savages by the men always, if not by the women."

Time of Running Away. Thirty-eight per cent. of the 250 cases ran away during the summer; 33% at all seasons; 20% in the spring; 4% in the fall, and 1% in the winter.

Causes. The immediate causes of running away are probably best made out from the cases themselves, examples of which are given below in three groups: first, cases of children from 1 to 3-4 years; second, cases of children from 4 to 7 years inclusive; and third, cases from 8 to 12 years inclusive.

I. Group of Runaways from 1 to 3-4 year of age. (50 cases.)

1. A teacher of long experience, says: "Think I never knew a child that did not love to run away soon after it could walk with ease. Cause, I have observed, seemed impulse. A little girl of four, next door to me, runs away whenever left unguarded in the yard, and even tries to outrun and escape whoever is watching her. My own nephew would dash off into the street when he could but just run alone. I think spanking, tethering with a rope about his waist, and confining in a pen in the yard, finally broke him of it. He has not done it since he was three years old."

2. M., 1 yr. 6 mos. Had played quite a long time in the yard, finally he started off into the road. Mother says: "I saw that he was off in the mud and started for him. Seeing me coming, he commenced running as fast as his little feet could carry him, splashing through the little puddle of water standing in the grass."

3. M., 1 yr. 8 mos. Was left playing in the yard while the mother was dressing to go calling. He knew that she was about to go. She says: "When I came into the hall to see him again, he was going just as hard as he could walk to town—thought he'd go too—I started after him and he, seeing me, commenced running, so I commenced running, but he turned the corner and had gotten nearly to the blacksmith shop before I caught him. He was highly amused at the fun, and screamed with laughter when I finally took him up in my arms."

4. M., 3. Frequently left in search of his papa, when the gate was

[1] Havelock Ellis: The Criminal, p. 101.

closed he would crawl under the fence. Took a pail and went down Broad Street where parents get milk. Child said: "I fought I needed some milk, mamma. I was going to put it in dat pitcher and not drink it."

5. F., 4. Had never ran away before. One day in the spring time the child was out playing. An older sister of the child had just departed for a brief visit to a friend's house, not far away. It was supposed that the child had not seen the sister going, but the girl had scarcely arrived at her friend's house, when looking out, saw the child standing outside.

6. F., 3. Ran away whenever the opportunity offered. She never seemed to have laid out any plans for running away, but seemed to act apparently upon the impulse. One time she ran away for two or three blocks, and when found was making mud pies, in which occupation she was deeply interested and very angry when taken home. Again she ran away and found a large doll on a neighbor's porch. This she carried home to play with.

7. *Aimless.* M., 3½. No playmates. Yard gate tied to keep him in. His desire to get out of the yard was so strong that he persuaded the passers-by to untie the rope. The gate was opened for him and out he went. On he went alone for a great distance. Was found in a blackberry patch, tired and feet scratched. Realized himself lost and began to cry.

8. *Following.* F., 3. Followed secretly after her father, who had gone to the pasture for horses. She lost sight of him: continued her journey until she had gone about two miles from home.

8½. M., 2. Had no playmates. Too small to be allowed in the streets with the boys. Stranger called at the house. When he left, the boy slipped through the gate and followed him until he saw some little boys with whom he immediately made acquaintance.

9. *Beggars.* M., 3½. Two twins ran away on a hot day. Stopped at a store. Begged that each might have a parasol. Went on further to a merry-go-round, hesitated, then accosted the manager for a ride.

10. *Water.* M., 2. Always went alone. First trips were to a duck pond.

10½. M., 4. Ran away during the summer. Two years old when he began. Would go to the beach and neighbors' houses.

10¾. M., 3. Never went any great distance. He liked very much to go down to the water and generally could be found there when missed.

11. *Hunting.* M., 18 mos. Eluded those who watched him, and found half an hour afterwards in the sage brush in eager but unsuccessful pursuit of lizards and horned toads.

11½. M., 4. Heard frogs sing. Asked mother what they were and desired to go at once to see them. Was told that they would jump in the water and could not be seen. A few days later M and a younger brother, 13 mos., disappeared suddenly. After a long search they were seen coming towards home through a field adjacent to the frog pond.

12. *Impulse to go.* M., 3½. Walked a mile and a half to the station, boarded a train and got off at Newark, which is about 30 minutes' ride from his home. His father works in it,— probably the reason for his going, although I should think he was too little to think about going there. Went alone. Did not prepare, not even wear a hat. Found in a very dirty condition. Was taken to his father's office by a friend. The child, however, was perfectly contented, not seeming to care at all about what had happened.

12½. M., 3. Began to run away when only 3. Parents lived in the country about 1 mile from any house. Always went alone and would

never have anything on his head. When found would be talking to himself or playing with sticks and stones by the roadside. Would go away three or four times in a day, no matter how much he was scolded or punished for it. He continued to do this until he was about nine.

13. *To See New Things.* M., 3 yrs. 4 mos. Has shown a tendency to wander since he was 14 months old. Mamma would wrap him up and put him in the yard to play; and when people would come for the doctor, M would start for the gate and slip out. Would get down the street some distance before mother would miss him. When she would start for him he would laugh and skip on. He runs away to see everything that comes along, no matter what. He would have to stop and make friends. He continues to roam and I believe always will; even though he receives severe punishment he will run away. It has never ceased, but grows stronger.

14. *To the Fields.* F., 2. Great propensity to run away. Every time it found the gate open or a hole under the fence, it would make its escape and be gone. One morning mother awoke, found child gone. Being alarmed, she immediately went down stairs and searched. Not finding it, she awoke the sleepers and a general search was made. The child was found in the fields plucking flowers and singing to itself. It seemed to be in perfect content and happiness, and I know did not plan the performance, but waking up, as it did, before the rest of the family, and finding the door open walked out, bare-headed and bare-foooted, nothing on but a night-gown.

15. *Love of Change.* M., 21. Related by his sister. "He began to run away when about 18 months old. One member of the family was always detailed to watch his little excursions. Was very frequently picked out of danger a mile or two from the house. Strangers were frequently finding him and setting him over in other people's yards. One day he ran away naked rather than miss an opportunity. He was then two. To prevent his going over the stile we erected a dough face on the side, which frightened him very much. Remained in the house for three days; on the third day he got out by climbing a high back fence and going through a neighbor's garden. This occurred at the age of three.

"He has an aversion to monotony. To quote his own language: 'I have a holy horror of monotony, such as travelling on water affords, unless there is abundant material to take my attention inside the steamer. I could never sit placidly down as some do and watch wave after wave come following each other in toward the ship. This began to grow on me at about my sixteenth year, or a little before, though of course it is shown in my life before. My instinct is to travel about in search of variety. Between the ages of sixteen and nineteen I made more than thirty moves in one town. Within that period I think I lived in every part of the city and its suburbs. It is also a fact that I disposed of my trunk for a valise simply because the valise represented less property than the trunk and thus relieved me of a burden. I regret very much to buy an overcoat, owing to the numerous hot days when it is of no use to me and lies a silent burden on my hands.'"

These are samples of 50 cases of runaways between the ages of one and 3–4 years. They indicate strongly that running away is common among all children at that age. It is impulsive, aimless, wholly unconscious of attendant circumstances, such as bodily danger, anxiety and worry to parents. Oftentimes playfulness, a sort of roguish delight, especially when being pursued by mother or nurse, prompts them to run further. (Cases 1, 2 and 3.)

A sort of imitation, following after anything that moves, fondness for water, to become acquainted with, and to hunt and capture animals,

to search and gather fruits are all stimuli that may touch off and set agoing the nervous, quivering, unco-ordinated organism at this age.

These activities also present within themselves an almost complete picture of a very primitive civilization even before nomadic times, before man had taken the trouble and patience to tame his captured beast for food and labor. The picture is complete when one thinks of the great variety of primitive weapons for hunting and war that are made by young children. A collection of such implements may be seen in one of the rooms in Clark University.

Begging occurs amidst plenty, among children provided with all the wants of child life. Children leave a home of plenty and ask for bread, enter a store and beg for an article of clothing.

There is almost a total absence of anger, planning, deception or injured feelings, previous to their leaving home.

Aside from these temporary, passing impulses, that appear to be a phenomena of normal growth, as much so as gill slits or milk teeth, there is still present in some cases an impulse to go, that is deep seated, a propensity that is a part of the child's character itself, ingrained in the nervous organism, a passion that must be gratified. It dominates not only childhood, but the entire life, increasing with age. Case fifteen exhibits not only this passion, but other traits that seem inseparably bound up with it. Among these are aversion to monotony, love of change, carelessness in dress, and neither care nor appreciation for the value of property.

II. Group of Runaways from 4 to 7 Years Inclusive. (Selected from 80 Cases.)

1. M., 5. Continually runs away to have his own way—has a roving disposition, never stays long in any one place—walking quietly along with his mother who stops to talk with a neighbor, he takes advantage of the opportunity and skips.

2. M., 5. Always follows a band, or a crowd of any sort.

3. M., 4. Runs away as often as he can make his escape, object seems to be to find out where the people are going who pass his house.

4. F., 4. Active child, fond of company, noise and new sights, when let out to play will stay awhile in the yard and then start off; sometimes she will go to the neighbors, sometimes to the store, and sometimes to the pond.

5. M., 5. "When living in the country was continually running to the fields of clover and daisies and playing in the sand. Now living in the city he is so eager for seeing, so excited over anything new, that he 's off and away often even after I have told him to stay in the yard." Taken from a mother's diary of her children.

6. M., 7. Thought it would be great fun to go down street *without* his parents; went with the milkman. When left in the town alone suddenly became lost, was frightened and began to cry.

7. F., 5. This child has no fear of anything. She will make friends with all kinds of animals, large or small, will run after wagons which pass the house, will walk up to a stranger and take his hand and go anywhere with him, never giving a thought to home. She will wade in water up to her neck. She starts off in the morning on one of her excursions around the town as soon as she can slip away unseen. Her first act, as soon as she is out of sight of home, is to throw away her shoes and stockings. When found does not try to hide, seems willing to go home, although she may run away again as soon as she finds she is not watched.

8. M., 5. Left home in the morning with another boy to visit a glass factory. Search was instituted about noon and continued till

about 2 P.M., when he returned of his own accord. His sister says: "His little face and hands were black and much besmeared. We were all so glad to see him and get him back again that we laughed and cried alternately. At this he was very much amazed and opened his big blue eyes in wonderment."

9. F., 6. "Would go whenever she had a chance. On a warm day in July she started off through a large cornfield with her little boy cousin of 6. They ran on and on through the corn. Pretty soon F., who was very fond of taking off her shoes and stockings, sat down and removed them, M. did the same—left shoes and stockings in a little heap, and jumping up ran on, F. leading. They finally grew tired and began to think of getting back home, but they found themselves suddenly lost; they began to cry, not knowing which way to go; they ran aimlessly through the corn and finally emerged into the road, when they were rescued. Both repented and promised to do so no more. The shoes and stockings were not found until the fall, when the corn was cut."

10. F., 5. Had been kept at home a great deal. Left one day with a playmate to see the city, went to water works a mile from home, then to the court house and several other public buildings. "These places were new to them, and it was a great fascination for these children to go alone, and not only a satisfaction to go by "themselves," and stay as long as they wished, but it was a great delight to tell their associates about it and boast of their little adventure."

These are typical cases of children's fondness for new places, new sights, strange people, desire to do new things not *supervised by their elders*, make new acquaintance with man, beast, plant and earth, to explore places and experience the unexpected. There is no special interest in any one place or thing, but it is all places and all objects. Anything will set them agoing, a stranger, or loud dressed persons, a peddler, a tramp, a crowd, a team, a band, a procession.

There is much material here for speculation, both for the atavist and teleologist, but more especially valuable hints for pedagogy. These activities are the expression of a very complex organic structure acting not unlike an automaton not well controlled or co-ordinated as yet. The range of stimulus that will set it agoing is wide. Through activity, through experience, comes co-ordination and control. Lloyd Morgan[1] says: "Chicks, for example, at first peck indiscriminately at almost everything that catches their eye, notably at their own excrement. . . . . And you may watch the stages of gradual avoidance of pecking at this material ranging from mere hesitation to complete neglect." They learn not to pick up lady-birds after a very few experiences with its distastefulness. "These, though simple cases, are examples of activities under control as the result of experience."

Primitive man, too, had to learn to recognize the animals that would make a repast, that would destroy his food or challenge his strength, and the fruits that are palatable and distasteful. Are not the early hunting and searching activities of the child atavistic, and at the same time giving it a practical acquaintance with nature?

1. M., 7. Runs away to play with other children. Sometimes goes home with them. Fond of playing at the river.

2. F., 4. Had not brothers or sisters; ran away a great deal to play with other children.

3. F., 7. Runs away to play with other children. Mother does not let her get her playthings around and have a real good time, and as she is an only child she likes to go where there are other children.

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[1] Lloyd Morgan: Introduction to Comparative Psychology, p. 176.

4. F., 6. Youngest child, good home and plenty of toys, but runs away to play with other children.

5. M., 5. Has to be harnessed and tied to be kept in the yard. Persuades people who are going by to untie him. One day some large boys dragged him across a railroad bridge. He could not get back home. This frightened him so much that he did not care to run away again.

6. M., 5. Loved crowds and gatherings, would not stay at school nor at home. Different means were employed to break him. Was bright, and readily learned his lessons. At seven he quit it. The change which was wrought upon him I think largely due to the fact that his school work was being made more interesting.

7. M., 8. Began to run away as soon as he could walk. Stopped at 8. Due to his mother's discipline and interest in affairs at home.

8. M., 6. Got mad at his little sister, who had charge of him. Mother was sick. He started across a large field, entered a woods, soon grew tired and started back, but was lost. He fell asleep. Was found in this condition. Never left home afterwards.

9. M., 4. Wandered off frequently, once into a strange street. When found was being cared for by an Irish woman. Was always punished for running away. His mother, when a child, was even worse given to running than M.

10. F., 3–4. "I used to run away to play with other children. Was the only child and became lonesome at home. Gate was tied. I climbed the fence. My mother has always been subject to desires for roving. She is not strong mentally, owing to ill health. When everything does not suit her, she works herself up to a great nervous strain, and then goes traveling for a day or two to wear off the evil effects. Sometimes she leave in an injured mood and aimlessly starts out."

These cases illustrate the effort very common among young children to relieve the sense of loneliness, and a longing for playmates; also the less common causes for running away, *e. g.*, anger, disappointment, punishment, injured feelings and the like. Cases 9 and 10 indicate that heredity may have been the controlling factor.

III. Group of Runaways from 8 to 12 years Inclusive. (Selected from 120 cases.)

1. M., 11. Always wanted to be out of doors. Whenever anything did not please him became angry and would take his hat and start on a run. At first he was only gone two days, no one knew where and he would not tell. The older he grew, the longer he stayed away. His parents treated him well and on his return baked him an extra cake and tried many means to please him — did no good. In about a year he would leave again, usually about harvest time. The feeling that he must run away lasted him through life, for he ran away a number of times after he was married, leaving a wife and two children for nearly eighteen months.

2. M., 8. Would wander off in search of adventure, and persisted in doing so in spite of the whippings administered by his father (chaplain to the penitentiary) on his return home. Kept posted on the doings of leading outlaws and adventurers.

3. M., 8 and 10. Both left home secretly. Wandered from place to place. Slept in lumber piles. Had comfortable homes and kind hearted parents. Said "they wanted to go somewhere."

4. M., 8. Went 20 miles from home into the woods, where a great number of men were at work, went on the tote team, made some money. Stayed as long as he wished and reported a very enjoyable time to his worried parents on his return home, though he must have suffered intense

cold and hardships of winter camp life. Now thirteen, and a great home baby. Left off running away gradually.

5. M., 11. Was a leader. Disliked to be ordered to do anything. Otherwise willing and anxious to work. Ran away from home to get work for himself. Succeeded. Work was very hard, but he would not give it up. Parents learned of his whereabouts and had him sent home. "He had been away three months, had earned some money, bought new clothes and base ball and bat. His hardships were many, but he was so persevering that he rose above them. He has grown to manhood and he believes this experience one of the best in his life, as it taught him self-reliance."

6. M., 9. Lived in a quiet place, with grandparents, seven miles from village. Ran away every opportunity to the village to see what was going on and to increase his chances for taking things. Could not resist the temptation to take money. If he could not steal money, would take eggs and sell them, would even ask entire strangers to loan him money. After grandfather's death he still kept up his mischief, and at last stole jewelry, for which he was sent to a reform school.

7. M., 8. "Causes us many a heart-ache these days. He often tells lies to hide some mischief he had done, and sometimes sticks to it for a day or two. He and another little boy ran away from school twice—a thing our other boys never did." (Taken from a mother's diary.)

8. M., 9. "Not satisfied with A's (younger brother) company. Seems determined to get with older boys, and to do this often goes far from home. Then he, to shield himself, does not hesitate to tell wrong stories and insists that they are so."

9. M., 11. "Not satisfied with a generous allowance of spending money, stole sixty dollars from his father when family were asleep. Spent the money on an excursion and treating companions. Was caught and sent home. Had run away before and stayed three or four weeks. Father has sent him around the world to try and reform him."

10. M., 8. Vexed at his father, decided to run away, bought an old boat and started down the river, was caught and brought back.

11. M., 10. Began to run away at 10, seemed to get spells of being disagreeable or ill-tempered, when he would do something that would make him afraid of punishment. On one occasion was set to churning, when he arose and kicked the churn over, then went away. Another time he wanted to milk a pet cow belonging to a little lame sister who always milked her, he knocked the little girl over, then fled. At other times mere mischief seemed to be in him so strong that he would do something that would make him afraid to stay. He once took a notion and painted black spots all over the white pigs, then went away. After the first time the impulse to run away grew stronger, he became more brave each time. Took a trip one fall up the canal, was thinly clad, came home several months later dirty, ragged, and nearly frozen. His trips were never planned; always seemed glad to see all the family on his return.

"This restless nature has clung to him all his life. As I know him to-day he stays in one place only a short time, is quick tempered, a hard worker, and still has these moods of irritable feelings which find their vent in drink and roving."

12. M., 8. Left home clandestinely with a companion one fine spring morning to seek fortune on the tow-path, several miles from home. Returned late at night, foot-sore, weary and hungry. Mother said: "You may help yourself to some bread and milk." In after years he told the story. "I crumbed a whole loaf of bread into a whole pan of milk and had a very comfortable supper." He became a very successful business man.

These are examples of the period of childhood in which the impulse to run away exhibits the genuine traits of *Wanderlust*, (cases 1, 2 and 11).

It is the period in which an inordinate love for certain pleasures, impatience, restricted liberty, inferior home comforts, incompetent parents, injured feelings and anger, desire to earn their own money, are all variable factors in causing runaways.

Planning, all manner of cunning and secret preparation may attend their departure. Very astonishing and serious breaches are committed against the moral law, such as stealing, lying, swearing, willful destruction of property, and cruelty to playmates and animals. It is the period of hardness, indifference, the hot-bed of the chronic forms of truancy and a perennial spring for juvenile crime. The energies of the child readily unite with the katabolic elements in the established order of society and government. He is impervious to moral suasion and the influence of example. The welling up of the great fountain of altruistic motives of adolescence has not yet begun.

On the other hand, as it will be shown later, genuine penitence for wrong doing appears at ages 9 and 10. Oftentimes running away ceases at 8 and 9, owing to new interest in home and society, the discovery of new relation of self to environment and increasing self-respect.

Those answering the questionnaire assigned the following causes for children running away. Impulse to be going form 21% of the causes given. To play with and be with other children 13%. Curiosity to explore and see new sights 11%. Love for outdoors 8%. Lesser causes are loneliness, anger and disappointment, love of change and excitement, to see relatives and friends, impatience of restraint, to seek a fortune, cruel parents and injured feelings, inherited, to avoid work, etc.

Making preparations for leaving, and secretly planning, form a very small (16%) proportion. By far the great majority leave openly at any time, many go without covering for the head, without shoes and without raiment. This applies, of course, to the *first* time of running away, and more especially to the younger children. If the habit persists, various devices are employed to escape unnoticed.

The great majority went to the water, next in order comes woods and fields, followed by streets and neighbors, then to various places of activity, *e. g.*, factories, saw-mills, canals, erection of large buildings, and to the railroad or depot. Many were found at play, sometimes alone and talking to themselves, some still running, others at work, and still others hiding, stealing, asleep, or crying. Quite a number were found crying, and of those who had fallen asleep, the dried tear on the cheek, feverish brow and frightened manner of awakening, indicated that they, too, had been crying. Mention is made of this because the crying was caused by the overwhelming sense of being lost. They run on and on, throwing off garments and any impediment that obstructs the full swing of the impulse, and then suddenly, through fatigue, perhaps, they stop, impulse has vanished, or perhaps shifted to the farthest opposite extreme from that coincident with the running. If the former was positive, it is now negative. The whole being is bewildered, in utter confusion with the sense of being lost. The sense of orientation is gone, and with this comes, not in reality, but an equivalence to a state of paralysis, not a limb nor a muscle moves with any precision. They dart here, now there, all within a short radius, and when completely exhausted fall asleep.

It is remarkable, too, that those who experience this shock seldom run away again.

To sum up a portion of the data thus far examined, it appears:

First, that running away in childhood falls into three periods, each differentiated from the other by certain characteristics, impulses and activities. The first period extends from the time the child is able to walk with ease to between three and four years. It is common to all children, regardless of home life or physical conditions. It is characterized by aimlessness, openness, and unconsciousness of danger or any wrong. During their little escapades some very primitive as well as semi-barbaric practices crop out, *e. g.*, chasing and capturing animals, begging, taking things that please their fancy, etc.

The second period, extending from 4 to 7 years inclusive, shows a dominating love for play and companions, and outdoor life. It exposes in rough outline the child's disposition, likes and dislikes, on a dim background of home life, parentage and physical condition. Home life is illustrated when the child leaves on account of loneliness, absence of toys and other childish amusements. The personnel of the parents is frequently indicated when the child is broken of the habit by firm and proper home treatment, or when the child leaves on account of cruelty of parents. It is the period of curiosity, the age of attempts, and a sort of diffused universal interest for nature and man. All things attract him, seeks the acquaintance of any and everybody, enjoys new sights and the unexpected, likes to do new things as a test of his courage and to make explorations into new vicinities.

Anger, injured feelings, desire for wider liberties begin to appear at the latter end of the period; also an occasional truant is born in the sixth or seventh year. It is also worthy of notice that many quit the habit altogether toward the close of this period and the beginning of the next. Focusing down of interests, a growing love for parents, attachment to certain groups of playmates, fondness for school work and teacher are all forces overcoming and destroying this powerful relic of primitive man.

The third period, extending from eight to twelve inclusive, brings out in bold relief the part played by home life and comforts and parents in the behavior of the child. In this period the child frequently abandons the habit altogether, due to the influence and integrity of the home, or he begins it in serious form for the first time in life, due to incompetent parents and an unattractive home, or to the impulse itself, which dominates all his life activities, unfitting him to wrestle with fortune and destroying the desire to do so. He becomes more impulsive in action, non-persistent in tasks, impatient of restraint, careless in person, indifferent towards property. He has little or no sympathy with modern movements of society, and will not fuse with it, but stands out like an outcrop of an older formation, pointing the genetic psychologist back to the probable origin of the migrating instinct.

Section II. One hundred and ninety-five returns were received in answer to Q. III, "Describe any case of truancy from school or church, its motives, traits of the child, mode of concealment."

A consideration of this data brings us into closer quarters with the truant problem.

The following typical cases illustrate the character of the returns together with the probable causes of truancy.

1. *To play and be out doors.* M., 10. Plays truant frequently. Sometimes he stays around grocery stores, but usually plays with groups of children whenever he can get them together or can find them. He will tell a lie as quick as the truth. Has a good memory. Always has good lessons, learns them readily.

Dislikes School. M., 8. Ran away from school. Did not try to

conceal it, nor did he care for the punishment received from his parents or teacher. He was not inclined to like study.

To Eat and Steal. F., 7. Left school to obtain meals from a charitable institution. She was underfed, undersized, parents poor, child reticent. She merely disappeared from school and presented herself at the other establishment. Kept her secret a week.

M., 13. Left school at noontime with another boy to "steal apples" from a rich farmer.

Impulse to Go Off. M., 13. Was given to running away from home and playing truant. He was pleasant, handsome, popular with the boys, giving no trouble while at school, a good student and very smart.

In April vacation, not very long after he had entered school, he disappeared. The police were employed, who finally found him at work in S——, dirty, and in a miserable condition. He had no pride. He had a mania of going off with no intention of returning. He gave no reason for going. He is now on a fruit ranch in California. His style is that of a cowboy.

Impatient of Restraint. F., 16. Ran away from school on an average of three days in the week. She did this because she was too indolent to get her lessons. She was the oldest of the children and had always been taught that she was very smart. She possessed a determined disposition and wished to have authority over her associates.

Dull. M., 13. Not all bright, has a good home, good food, well dressed, but can't get his lessons.

M., 17. Rather dull and heavy. Disliked study, but not otherwise troublesome. Ran away, got to B. Stowed himself away in a freight car. Slept there over night, but seeing in the morning that the car had not moved he returned to school.

Lazy. M., 16. Came from a wealthy home, was lazy, but not ugly. Hated to study and to be driven to his books. Had been in school some little time when the prospect of study again upset him just after a vacation (in the warm weather). He suddenly disappeared; was found after a week hiding in a cave that he had dug out in the woods within half a mile of the school. Other boys had carried him provisions.

Poor Home. M., 15 and 14. P. came from a poor home. His father a drinking man. This boy was very happy at school, but was led off by L. In the spring time both started for New York (both lived in N. Y.) but were caught and brought back. They were thoroughly frightened by the policeman, who threatened to lock them up. They never ran away again.

Indulgent Home. M., 15. Had a pleasant home and indulgent mother. Father dead. Ran away from school several times. Ran home, of course, walking all the way or borrowing car fares. Mother had no control over him. Could not make him return to school. He hated study. As the habit of running off was not broken, I advised the mother (and after much persuasion she consented) to have the boy arrested the next time he ran home from school. He was arrested and put in the lock-up and given the choice to return to school or be put in the Westboro Reform School. The boy was cured. Afterwards became a railroad fireman.

Influenced. M., 10. Was induced by another boy to play truant. Both went down to the wharf after licorice root. He was very much afraid after he had done this, and went home when it was time for school to be dismissed. On entering the house his mother (having heard what he had done from the other children) asked him where he had been, at this he burst into tears and begged to be forgiven,

saying that he would never do it again. He was pardoned and has never done it since.

Weather. F., 10. "Instead of going to school, took my lunch and spent the whole day playing along a brook in a cornfield. I did it because it was hot in school and to see how it would go to play truant. After returning home I felt ashamed, could eat but little supper. Finally confessed to my mother."

Home Life and Disposition. M., 5. Had a father and stepmother, his own mother died when he was 2 years old. At first he merely did not like to go to school, did not like the confinement, did not want to learn to read. He would loiter along the road until too late for school, then would go behind stores or in some secluded spot and play in the dirt and pick up strange or curious articles that he might find. When school was dismissed, he would see other children going home and would go home himself. Sometimes he would find other children who did not attend school and would play with them. He seemed to find a great delight in digging out with his fingers the leavings in sugar barrels and in picking up decayed oranges or apples from refuse piles. Whenever his father knew that he did not attend school he whipped him severely, locked him in a room alone, deprived him of his meals. He would not stay at school more than one day at a time. A kind old gentleman induced the boy at 7 to come to his home each day and pick up chips and do light work. Through this man's influence he was induced to attend school about two weeks, and might have continued, but the old man found a little fault with the boy one day and spoke sharply to him, the boy became angry and would not go near the old gentleman or the school any more. His stepmother did not care where he was or what became of him. He very often, when a little older, slept at night in a barrel or box behind stores, did not care to play with other children, preferred to be alone. He was morose, quiet, very quick tempered and obstinate, would fight, strike, throw stones and clubs at other children on the least provocation, and sometimes was severely hurt by larger children. He soon began to quarrel with his stepmother, threw stones at her through the window, ran away and did not return for several days, until his father caught him one day and dragged him home with many a kick and cuff. At about 13 years of age he fought so much with his stepmother that his father put him in a Reform School. After he was released he chose the worst of company, was arrested for stealing and shut up a second time. Before dying, he said his father and stepmother were to blame for the life he had led. He was the youngest of his father's first family. His two sisters lived out and took no interest in him. His food and clothing were not good. He had no toys, no books, no pin-money, no affection shown him.

Aside from the causes to be gleaned from these cases there are mentioned "homesickness," "out of humor with the teacher," "to defy authority," "afraid of being late," "desire to be alone," "religious scruples," "to meet a member of the opposite sex," etc.

These instances show first, that truancy is common to all children regardless of sex, physical, parental and home condition; second, that the immediate causes are many and quite varied.

The following table is a comparison of the home, parents, and mental traits of truants with runaways.

	Runaways 201.	Truants 195.
ITEM.	Per Cts.	Per Cts.
Don't own home,	46	41
Parents living,	81	76

Item.	Runaways 201. Per Cts.	Truants 195. Per Cts.
Good food,	89	81
Spending money,	61	54
Affectionate,	60	44
Oldest, youngest, only group,	79	83
Quick tempered,	75	64
Laugh easily,	75	42
Generous,	70	62
Untidy,	52	55
Destruction of property,	68	61
Girls,	25	19

It shows that runaways are more liable to be destructive of property, and quick tempered than truants, while in all other respects, *e. g.*, home comforts, untidiness, affections, etc., the comparison favors the runaway, placing the truant in a rather more unfavorable setting. One is impressed, however, with the close parallelism that holds throughout the comparisons.

Fifty-six per cent. of the truants are reported as "not affectionate"—of which 52% had poor clothing and food and no spending money, except what they earned, showing a striking correlation between wholesome surroundings and the emotional life of the child. Again the greater number of the 55% that were untidy in dress, destruction of property and regardless of others' rights, were likewise the children of poverty, rags and dirt.

Attention has been called to the large percentage found by the oldest—youngest—only child group of runaways. It is found that the percentage (83.5%) is still larger among truants.

The writer has had during this investigation no preconceived notions as to the probable degeneracy of truants and runaways. Neither has advantage been taken of hints or suggestions that might give credence to such a view, and yet the failure to give full value or to ignore the probable significance of the oldest—youngest—only child group would be a very unscientific procedure.

Of 120 truants, 16%[1] are neither oldest, youngest nor only child; 30% belong to the youngest group; 27% belong to the oldest child; and 25% belong to the only child group. What is the significance of being the first or last child of a family? Is it generally unfortunate to stand in this numerical relation in the household?

Space prohibits a thorough discussion of the subject. A few general facts must suffice.

First: It is generally agreed that the normal period for child-bearing is between the ages of 24 and 35. Second: "That[2] mothers under 24 and over 35 are those more specially liable to have idiocy in their children."

Korosi, quoted by Ellis, concludes, after having examined 24,000 children, that the most healthy children have a mother below the age of 35; the children born between 35 and 40 are 8% weaker; after 40, 10% weaker.

Third: The children of father under 20 and over 40 are liable to have weak constitution, feeble minds, and prone to break the moral law. "Marro[3] found by dividing fathers into three groups according

[1] Further investigation of the migrating problem shows that among lovers of home and persons who have never run away (cases 225) 45 per cent. are neither oldest, youngest or only child of the family, as opposed to 16 per cent. in the case of the truants under consideration.

[2] Duncan: Sterility of Women, p. 65.

[3] Ibid: p. 93-94.

to age at conception: the first included those in the period of immaturity, which he reckoned as below 25 years of age; the second was the period of maturity from 26–40; the third, from 41 onward, the period of decadence. He found that the largest proportion of immature parents is among the class of thieves, although among the insane the proportion is still larger. More remarkable is the abundantly large proportion of criminals with parents belonging to the period of decadence."

Mitchell[1] says: "Among 443 idiots and imbeciles consecutively examined, I found 138 first born or 31.1 per cent; and 89 last born, or 20.1 per cent." That is, over 50% of 443 idiots belong to either the oldest or youngest child. In the present investigation the youngest child in the youngest group is 6 years, indicating that he would probably remain the youngest of the family. It is almost needless to add that the truants belonging to the oldest group are more liable to be the offspring of immature parents and that the youngest child of decadent or declining parents, and would, therefore, suffer in mind and body a lack of growth energy. He will fail to flower out, and according to Mercier and others, a lack of initial growth force expresses itself in a failure of the complete development of the nervous system. For this reason he is less able to meet the demands of home and modern school life. His power of nutrition, his rate of metabolism is not keyed to the intensity of the stimuli arising from school life; to get in harmony with a stimuli equal to his rate of metabolism he seeks surroundings less exacting, which to the writer is oftentimes a recommendation for the boy and an unfavorable comment on modern school regime.

What is the meaning of the only child?

Upon this point Duncan[2] says: "Only child fertility or one-child relative sterility occurs in two forms; as an exhaustion of the fecund energies leaving the general bodily health vigorous, or as an exhaustion of both sexual power and general constitutional strength." In either case the chances are in favor of the child inheriting a weak constitution. 25% of 120 truants (30) form the "only child" group, and of this number 86% had both parents living at the time of observation, so that it looks as if the only child in this investigation cannot escape suspicion of a feeble constitution. Aside from these physiological considerations the youngest—oldest—only child group presents very often peculiar and unique social relation to the family and community. Case F. 16 (impatient of restraint), illustrates the domineering and impetuous child often found in the oldest child. Every one knows that the youngest child is the "spoiled child" of the family, and the only child is the petted child of the community.

Mode of Concealment. By far the great majority aim to join the other children on their way home from school and so manage to return home at the usual time and with their regular companions. The teacher is usually deceived (?) by a note written by the pupil himself or by some friend. Some tell their parents that their good conduct earned them an early dismissal or a half-holiday, others that the teacher is attending an Institute or is sick, or has died.

Places of Concealment. Woods, up a tree, cave, dugout, behind old buildings, on the roof, in the cellar, in bath-room, in a barrel, in a box, in a lumber yard, wood shed, pigeon house, freight car, and the like.

Where they Went. The great majority went to river, brook, pond, to fish, swim, skate, and play in the water. Next in order comes the woods and fields, then to play ball and other games, to see parades and be in large gatherings and on the street. Many are described as

[1] Duncan: Op. cit., p. 62.
[2] Duncan: Op. cit., p 14.

having an immoderate love for sight-seeing, excitement and out door activity. There is much material here for speculation, especially that furnished by the water psychosis, and also valuable hints as to the usefulness of out door excursions, etc.

Duration of the Habit and Number Cured. The duration of the period at which the child will play truant cannot be made out from the present material. It is noticed that many stop at 8 and 9, while others begun at that time. The average age of the truants is 13. The length of truancy varies all the way from a single instance to the entire school life. Sometimes it is the beginning of a series of offences against society that ultimately leads the unfortunate to the reformatory or State prison. Ninety returns on this point show that 58% are cured by firm, intelligent measures of parents and teachers. Of the remaining 42% some outgrow it, others stop and settle down to serious labor, and still others are cured by reform and truant schools, and finally there is that residuum to which truancy is but a stepping stone to the higher degrees of trampdom. Of the 42% that were not cured by home and school influence, 40% came from inadequate homes.

Thus far our notion of the truant rests on evidence gathered for the most part at second hand. The next chapter presents the truant from his side, together with certain facts gained through anthropometry.

CHAPTER III.

Anthropometrical and Sociological.

Sction I. To ascertain the truant's side of the story the following series of five questions were sent to the several truant schools of the State:

I. What caused you to play truant?
II. Who helped you?
III. Where did you go and what did you do?
IV. What did you tell your teacher and parents?
V. What did you like and dislike about your school?

The principals and teachers of the truant schools were asked to present these questions to the boys in the form of a language lesson and to encourage them to express themselves as fully and freely as possible. One hundred and sixty boys wrote papers as requested. They seem to have rejoiced at the opportunity to unburden themselves in the manner suggested and to have told a "plain unvarnished tale."

The following are examples of their responses.[1]

1. "I played truant because I didn't like to go to school. Nobody helped me to play truant—I helped myself. My father asked me why didn't I go to school; I said I was late; the teacher asked me, I said I had to go to Boston. In the summer time I went down swimming and in the winter I threw snow balls. I didn't like the teacher and I didn't like to stay in school all day."

2. "I played truant because I wanted to. I played truant with boys, but I don't want to tell their names. I told my parents that I was sick. I told my teacher that there was a disease in my house. I went to the Charles Street gymnasium. I disliked everything in school."

3. "Going with bad company helped me to play truant. I told my parents that I was at school and told them what happened, and told my teacher I had to go to the city for my mother. I went to the city, to the theaters and such places, with bad company. I did not dislike anything about my school, but liked it very much indeed."

4. "I played truant because the day was good. No one helped me play truant. I didn't tell my mother or teacher anything, I went around the streets. I did not dislike anything in the school."

5. "I played truant because I didn't like to go to school. The boys helped me to play truant. When I played truant I went in swimming. When I came home I told my parents that I went to school, and when I went to school the next day I would tell my teacher I was sick. I liked my school because my teacher liked me, and I disliked it because I had to go every day. When I came home after not going to school, I would not go in the house until 9 or 10 o'clock at night. I used to feel sorry to see all the boys coming and going into their homes after coming from school. I was ashamed to go home. My mother used to stay awake all night or until I came in. I used to mind my mother almost all the time. I was arrested once for breaking glass. I used to curse, but hope I never will again. The worst thing I ever did, and the last I have to say is, I am very sorry I disobeyed my parents."

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[1] The answers represent five truant schools in the State of Massachusetts.

6. "Because I wanted to have a smoke and to go picking up cigarettes. James Kelly and Ellis Wentworth helped me to play truant. I went up the Merrimac River stealing boats, and Jim Reading (truant officer) caught me. I told my parents that I went to school. I told the teacher that I was very sick and that I had the measles and would come next day, but I never went. The teacher was cross with us and I liked nothing about the school."

The evidence furnished by these one hundred and sixty compositions becomes valuable and unique, when reckoned with the data on runaways and truancy previously considered and with facts of anthropometry yet to be treated.

"What caused you to play truant?"

Sixty-one per cent. of the answers to this question assign causes apart from themselves, *e. g.*, disliked the school, the teacher, punishment received, or bad company, etc. Thirty-nine per cent. give causes originating within themselves, and the greater number of these left school to have fun, be out doors, to go to places of excitement. A few went to work. The answers to the second question illustrate forcibly the influence of companionship on a boy's conduct. Fifty-five per cent. were helped and influenced by other boys, a few by an indulgent grandmother, or a kind uncle and aunt. Some were persuaded to leave by men of the theatrical and peddler type. Those who played truant on their own account use such expressions as "No one helped me," "helped others," "it came into my mind to play truant," "myself made me run away," "helped myself," which savor with individuality, a trait that I found, through personal contact, pronounced in many.

Only 2% of 160 stayed at home, the rest, 98%, started for school, and either played truant on the way or left school at a convenient time during the day. A portion went to other towns and cities. The majority remained in their own town, a larger part of which spent their time in some form of activity and pleasure afforded by water, *e. g.*, swimming, learning to swim, rowing, sailing a boat, or learning how to sail one, fishing, playing in the water and skating. Others went to the gymnasium, theater, ball games, horse races, fairs, hunted cigarette stubs, stole, rode on various sorts of delivery wagons, hopped freight cars, amused themselves in dodging the truant officers, took a special delight in "getting chased." It is worthy of mention that few loafed on the streets. Their shelter at night was the woods, or a cave, a dugout, a dry goods box.

What did you tell your parents and teacher?

Eighty-seven per cent. lied to their parents, while 84% lied to their teachers. Lying to the parent is rather uniform, viz.: that they had attended school, and in many instances they sought to produce evidence to confirm this statement. Others report their good conduct earned them a half holiday, the teacher kept them after school, etc.

The opportunities for deceiving the teacher are greater, of which they took advantage, as are displayed by the varied forms of their lying. The following is a list: Sick headache, sick (without specifying the cause), mother sick, father in the hospital, to go for the doctor, had been crippled, to get teeth pulled, had measles, had cramps, had been vaccinated, disease in the house, earache, pain in the stomach, to run errands, kept at home, to mind the baby, to help wash, to go to church for instruction, etc. These boys are from 9 to 14 years of age, the age in which lying is regarded as a very minor breach of the moral law; so that when bodily discomfort and the good will of superiors are at stake they traffic in it freely without compunction of conscience.

In specifying their likes they show no great uniformity, unless it is, perhaps, for the out door games and exercises that the school affords. Gymnastic exercises, ball games, fire drill, nice play grounds are mentioned. Others specify the teacher, certain playmates, studies, etc. 66% disliked school life. 38% dislike the teacher, one states that "the teacher was to blame for everything." Among other things are mentioned the following: disliked to stay after school; certain studies; the whippings; prayers and catechism; to stay in the school five hours; to stay in the school nice days; disliked everything; disliked the looks of the school; disliked the girls; master and principals; disliked the sister superior, etc.

Section II. Anthropometrical.

This data was collected to ascertain whether or not there is anything in the truant's physical condition that will help to account for his offense against society, to see if his conduct is a function of a special physical setting, of certain fundamental physiological conditions.

To determine his physical condition the following plan was adopted:

I. The weight in slippers (without coat and vest), the height, and girth of chest over one garment was determined of 218 truant boys December 29th, 30th and 31st, 1896. During the week beginning Jan. 18th, 1897, the weight and similar measurements were made on 613 boys of Worcester public schools under the same conditions.

Nationality and occupation of the parent were obtained of both groups.

II. From April 5th to 8th, inclusive, a second series of the same determinations were made on the same truant boys, and during the week of April 25th the same boys in the public schools were remeasured. A strenuous effort was made to have the conditions of the second determinations similar to those of the first. This was unavoidable in some cases where the boys had changed their winter for spring underclothing. This occurred in both truant and public schools, which lessens the error to some extent. In these measurements regard was had only for the actual increase or decrease in weight, and for the increase in height over the weight and height first observed.

III. The sight and hearing of 113 truant boys were tested. The attendant physician of the North Chelmsford truant school tested the sight and hearing of 62 boys. I examined 51 boys of the Roxbury Parental School for sharpness of vision and hearing. Snellen's test cards were used for acuteness of vision and the ticking of a watch for the sensitiveness to sound.

The results of the first series of determinations show (see Tables I and II) that the mean heights, weights, and girth of chest of the truants are less than the public school boys in every instance, except at the age of 10, at which age they are equal in weight and height.[1] These relations are diagrammatically expressed in Chart I. The chart shows that the height curve crosses the weight curve between the ages 12 and 13 of the public school boys, while those of the truants boys do not cross until the ages of 13 and 14 are reached.

The results of the second series of determination show (see Table V) that the public school boys have gained more in height and less in weight than the truants. A much larger percentage of the former lost in weight. These relations, expressed in curves, show the increase-weight curve of the truants far above that of the normal, while the

[1] For comparing weights, etc., of Worcester Public School boys with school boys elsewhere. See Table II.

TABLE I.

Showing average mean weights and heights (in slippers), rate of increase, etc., etc., of Public School Boys of Worcester, and Truant School Boys of Massachusetts.

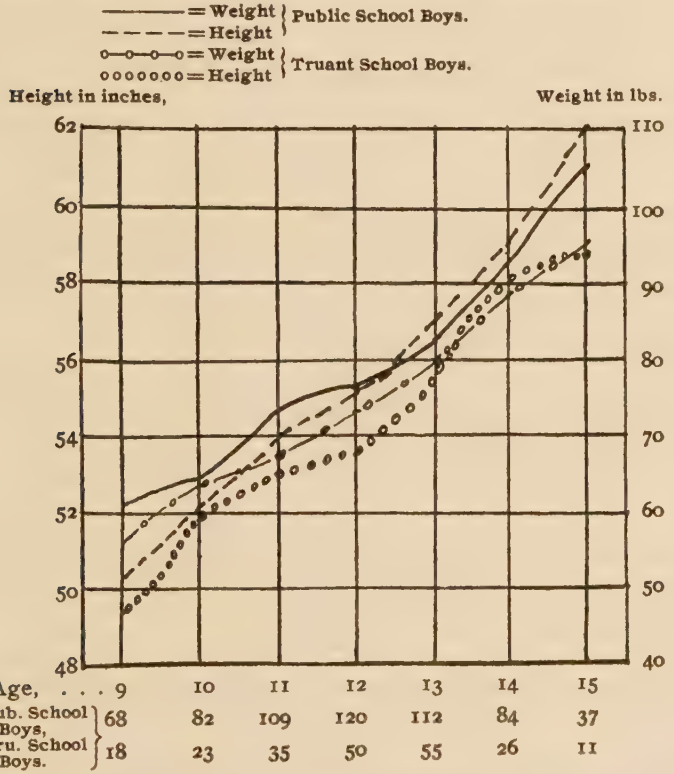
	WEIGHTS.								HEIGHTS.							
	PUBLIC SCHOOL BOYS.				TRUANT SCHOOL BOYS.				PUBLIC SCHOOL BOYS.					TRUANT SCHOOL BOYS.				
Age.	No. of Observations.	Average Weight.	Mean Weight.	Rate of Increase.	No. of Observations.	Average Weight.	Mean Weight.	Rate of Increase.	No. of Observations.	Average Height.	Mean Height.	Rate of Increase.	Ratio of mean Weight to mean Height.	No. of Observations.	Average Height.	Mean Height	Rate of Increase.	Ratio of mean Weight to mean Height.
9	68	62.10	61.43	—	18	57.73	56.75	—	68	50.91	50.81	—	1.20	18	49.42	49.49	—	1.14
10	82	65.56	63.50	2.07	23	64.75	63.51	6.75	82	52.03	52.25	1.44	1.21	23	51.77	52.25	2.76	1.21
11	109	71.43	72.00	8.50	35	69.85	68.25	4.70	109	54.20	54.25	2.00	1.32	35	52.61	53.00	.75	1.28
12	120	77.27	76.00	4.00	50	74.55	72.37	4.12	120	55.79	55.37	1.12	1.37	50	53.99	53.62	.62	1.34
13	112	87.49	83.12	7.12	55	83.30	80.25	7.88	112	57.04	57.25	1.88	1.45	55	55.71	56.00	2.38	1.44
14	84	93.98	93.25	10.13	26	85.98	89.50	8.25	84	60.00	59.87	2.62	1.55	26	57.45	58.50	2.50	1.54
15	37	105.24	105.00	11.75	11	94.00	95.00	5.50	37	62.21	62.00	2.13	1.69	11	57.72	58.50	—	1.62
Total,	612				218				612					218				

positions of the increase-height curve are reversed. The truants fall below the public school group at every age (see Chart III).

Of the 113 boys tested for sight and hearing, 38% were defective in sight and 47.7% dull of hearing. Of the 54 defective in hearing, 55.5% had abnormal vision.

CHART I.

Curves of rate of growth of Public School and Truant Boys.



Age, . . .	9	10	11	12	13	14	15
No. Obs. Pub. School Boys,	68	82	109	120	112	84	37
No. Obs. Tru. School Boys.	18	23	35	50	55	26	11

The results of Dr. Reichard's[1] extended investigation on the hearing of children show 22.27% defective. Dr. West[2] found 41% of Worcester public school children defective in sight below the ninth grade. For the ninth grade the defectiveness was 18%.

These are the findings respecting the physical conditions of two hundred and eighteen truants. What is their meaning? Before one attempts to interpret these facts, the nationality and occupation of the parents of the two groups of boys must be compared, that no mistake nor unjust discrimination be made against the truant boys. (See Table IV on nationality.)

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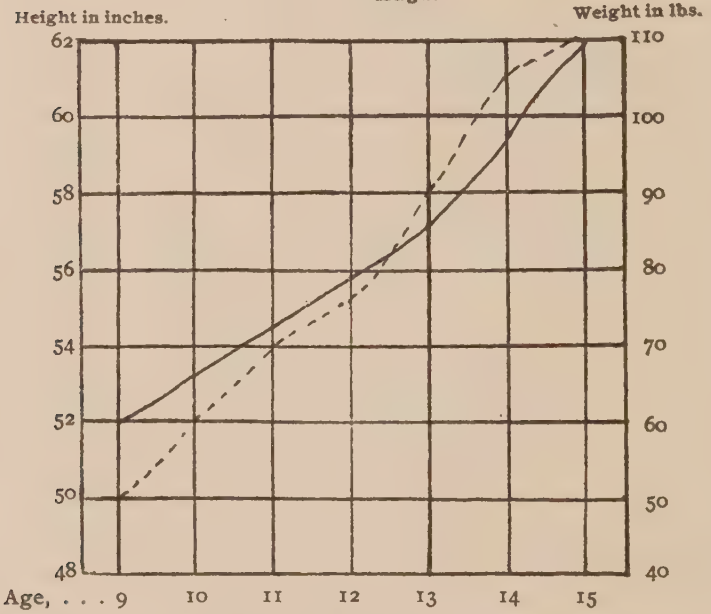
[1] Chrisman: PEDAGOGICAL SEMINARY, Vol. II. Summary from Reichard.
[2] West: *American Journal of Psychology*, Vol. IV.

Both groups represent a conglomerate nationality. The Swedes are in the majority, followed closely by Americans in the public school group. In the truant group the Irish lead, followed by Americans, with French Canadians next in order.

CHART II.[1]

Curves showing relation of weight and height of Boston School Boys.[2]
(American.)



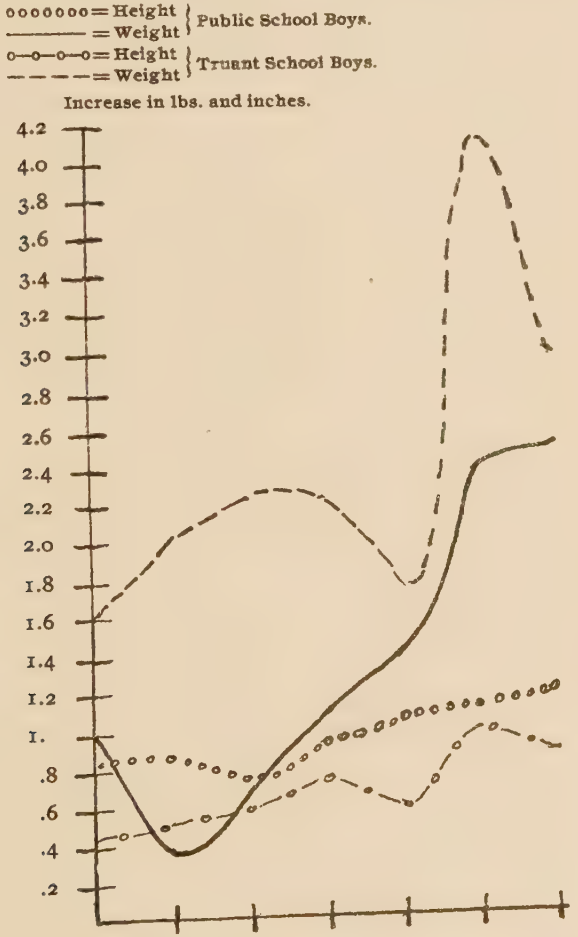
It has been shown among the adult population of the British Isles[3] that the Northern or Scandinavian element is larger than the Teutonic, and the Teutonic than the Celtic. The difference would be less among their children under like conditions, yet the fact cannot be ignored in the present case where these racial elements are so pronounced. Accordingly the data has been reconsidered in three ways. (1) The weights and heights of the Swedes of the public school boys were compared with those observed of the mixed population of the same group to see to what extent, if any, they affected the standard. Table III shows that the Swedes are not a disturbing factor in the public school group.

II. The Irish form 44% of the truant group. Can it be that such a large Celtic element has lowered the weights and heights of the truant? The weight and height of the truant Irish boys are compared with the truant mixed population. They show a close parallelism, ex-

[1] This chart is inserted merely as a convenience for comparison.
[2] Measurements made by Bowditch, Mass. State Board of Health, pp. 314-315, etc.
[3] Roberts: Manual of Anthropometry, p. 95.

CHART III.

Curves showing increase in Height and Weight during three months, Jan., Feb., March.



Age, ...		9	10	11	12	13	14	15
No. Obs.	Public School Boys.	55	76	97	101	86	78	28
	Truant School Boys.	21	19	30	40	39	14	5

cept at ages 13 and 14, when the weights have been materially lowered by the Celtic element; and yet the difference between the Irish truant weight and the mixed truants, at these two ages, barely equals the difference between the mixed truant weights and the weights of the public

TABLE II.

Showing girth of chest and ratio of weight to chest of Worcester Public School Boys and Truant School Boys of Massachusetts.

GIRTH OF CHEST.							WEIGHT, HEIGHT, ANNUAL INCREASE, ETC., OF BOSTON PUBLIC SCHOOL BOYS. (BOWDITCH.[1])									
PUBLIC SCHOOL BOYS.				TRUANT SCHOOL BOYS.			BOSTON PUBLIC SCHOOL BOYS.						ANNUAL INCREASE IN WT. AND HT. IN LBS. AND IN.			
							American.				Irish.		American.		Irish.	
Age.	No. Obs.	Mean Girth in Inches.	Ratio of Wt. to Girth.	No. Obs.	Mean Girth in Inches.	Ratio of Wt. to Girth.	Mean Weight.	Mean Height.	Ratio of Wt. to Ht.	Ratio of Wt. to Girth.	Mean Weight.	Mean Height.	Weight.	Height.	Weight.	Height.
9	68	23.48	2.65	18	23.28	2.43	59.97	50.09	1.22	2.59	58.92	49.53	5.54	1.93	4.80	1.81
10	82	24.30	2.63	23	24.27	2.61	66.62	52.21	1.30	2.59	64.99	51.57	6.65	2.12	6.07	2.09
11	109	25.34	2.83	31	24.92	2.73	72.62	54.01	1.35	2.72	69.60	53.10	5.77	1.80	4.61	1.53
12	119	26.28	2,36	46	25.80	2.80	79.82	55.78	1.39	2.82	75.70	54.82	7.43	1.77	6.10	1.72
13	111	27.28	3.04	49	26.72	3.04	88.26	58.17	1.45	2.95	82.84	56.70	8.44	2.39	7.14	1.88
14	81	28.53	3.26	25	27.80	3.21	99.28	61.08	1.55	3.23	91.19	58.88	11.02	2.91	8.35	2.18
15	36	29.90	3.51	10	28.84	3.29	110.84	62.96	1.65	3.46	19.21	61.15	11.56	1.88	10.02	2.27

[1] Report of Massachusetts State Board of Health, p. 314, etc., 1877.

TABLE III.

For comparing the weights and heights of different and the same nationalities with each other and with mixed nationalities of the Public Schools of Worcester and Truant Schools of Massachusetts.

	Public School. Mixed Population.			Public School Boys. Swedes.			Public School Boys. Irish.			Truant School. Mixed Population.			Truant School Boy. Irish.		
Age.	No. Observations.	Average Weights.	Average Heights.	No. Observations.	Average Weights.	Average Heights.	No. Observations.	Average Weights.	Average Heights.	No. Observations.	Average Weights.	Average Heights.	No. Observations.	Average Weights.	Average Heights.
9	68	62.10	50.91	37	62.74	50.74	10	64.37	50.31	18	57.73	49.42	10	58.68	49.41
10	82	65.56	52.03	32	66.64	52.7	18	64.26	53.24	23	64.75	51.77	11	67.08	52.84
11	109	71.43	54.20	40	71.44	54.30	23	70.59	54.06	35	69.85	52.61	23	69.60	53.03
12	120	77.27	55.79	31	75.18	55.60	24	74.22	55.30	50	74.55	53.99	24	74.09	54.41
13	112	87.49	57.25	33	85.16	55.85	24	82.49	57.68	55	83.30	55.71	26	78.54	54.93
14	84	93.98	59.87	12	88.09	59.11	22	94.39	60.64	26	85.98	57.45	8	77.84	57.43
15	37	105.24	62.00	3	103.33	59.54	13	116.52	61.98	11	94.	57.72	4	92.62	58.06
Total,															

school group. So here again the racial element fails to account for the whole difference between the truant and public school boys. (See Table III.)

III. A direct comparison made between 96 truant Irish boys and 134 public school Irish boys shows a greater weight at every age, for the latter, except at 10. The difference between the weight at 11 years is also slight. It would seem that ages 10 and 11 are periods of equalization in the life growth of man. A period when heights and weights become more nearly equal, regardless of nationality and occupation.

On the whole it is evident that differences of race does not account for the large difference already indicated.

The two groups were next compared according to the occupation of their parents. The occupations were divided into professional, mercantile, skilled and unskilled—a classification recommended and followed by Dr. Bowditch. For a comparison of the occupations of the parents of the two groups see Table IV.

This comparison is decidedly in favor of the public school group, if the occupation of the parent reflects at all the tone and propriety of the home. It is fair to assume that the home of the merchant and skilled laborer is less liable to privations and irregularities in the necessities of life than that of the unskilled laborer, whose minimal value as a producing factor greatly menaces the steady supply for the home.[1]

The home conditions are better appreciated from the facts gained by queries addressed to the boys themselves, and to the officials and records of the truant schools. It was found that 65% of 180 boys had incomplete homes, by which is meant the absence of father or mother, or both, by death, insanity, separation or imprisonment. (See Table IV.) Seventy-seven (42.7%) are partially or totally orphaned. The great majority of this number falls within the ages 9, 10, 11 and 12. There were no orphans present at 14, and only 1 at 15. This fact deserves emphasis, for the reason that the significance goes farther than the loss of the parent to the home, which fact may often be a source of truancy. The death of one or both parents occurring while their offspring is yet in childhood, is an indication that their parents are of an inferior stock.[2]

If there is a causal connection between the juvenile criminal and degenerate parentage, then the fact that 18% of 180 truants had committed petty crimes would strengthen the inference concerning the degeneracy of their parentage. Again, the relation of the truant to the parents points to incompetent parentage. The fact that the welfare of the child is transferred to the State, is evidence of the impotency of the parent to control the child. The character to control and influence the child aright is wanting.

Mr. Walton,[3] illustrating by a concrete example parental incompetency, says: "Here were these children, apparently of fair, if not of average capacity, perhaps slightly dwarfed in body, shy and reserved, living with parents of vulgar self-assertion and conceit, bred out of their shiftlessness, poverty and low ambition. The children themselves were forming idle and dissolute habits, and growing up in ignorance under the corrupting influence of their natural protectors, seemingly having no proper sense of moral distinction."

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[1] Our Consular reports of 1884 and 1895 of labor in foreign countries furnish very valuable and complete statistical matter on this point.

[2] "In every community, for various causes other than weak parents, there is a certain percentage of young orphans, which is the norm of that locality. Just what per cent. above the norm (yet undetermined) would indicate degenerate parents, can only be reached by actual observation."—Dr. W. H. Burnham.

[3] Fifty-ninth Annual Report, Board of Ed., Mass., 1894-95, p. 569.

TABLE IV.

Showing Parentage, Domestic Relations, etc.

		PUBLIC SCHOOL BOYS.		TRUANT SCHOOL BOYS.						
				HOME CONDITIONS OF 180 TRUANT SCHOOL BOYS.					HABITS.	
	Name.	No.	Per Ct.	No.	Per Ct.			No.	Per Ct.		No.
NATIONALITY.	Swede,	189	30.6	1	.4	FATHER.	Dead,	37	20.5	Second term in truant school,	7
	American,	186	30.3	61	28.4		In prison,	1	–	Arrested for petty crime before present commitment,	33
	Irish,	134	21.8	96	44.		Intemperate,	17	9.4		
	French Canadian,	48	7.6	24	11.	MOTHER.	Dead,	30	11.	Used tobacco (mostly cigarettes),	98
	Jew,	28	4.5	8	3.6		In prison,	7	3.8		
	German,	12	1.9	3	1.3		Insane,	5	2.7		
	Scotch Irish,	5	.8	2	.9		Intemperate,	7	3.8		
	Scotch,	4	.6	4	1.8	Both parents dead,		10	5.5		
	Dane,	2	.3	–	–	Both intemperate,		3	1.6		
	Pole,	2	.3	2	.9	Separated,		1	–		
	Italian,	1	.1	10	4.5	Orphans,		77	42.7		
	Portugese,	–	–	2	.9	Incomplete home,		117	65.		
	Unknown,	2	.3	5	2.3						
OCCUPATION.	Professional,	8	1.3	3	1.3						
	Mercantile,	96	15.6	6	2.7						
	Skilled,	280	45.6	85	38.9						
	Unskilled,	202	32.9	102	46.7						
	Unknown,	27	4.4	22	10.						

TABLE V.

Showing the actual mean increase in height and weight of boys of Worcester Public Schools and of Truant Schools of Massachusetts during three months and one week—Jan., Feb., March, and first week of April.

	INCREASE IN WEIGHT.								INCREASE IN HEIGHT.	
	PUBLIC SCHOOL BOYS.				TRUANT SCHOOL BOYS.				PUBLIC SCHOOL BOYS.	TRUANT SCHOOL BOYS.
Age.	No. of Observations.	Mean gain in Lbs.	Per cent. gained Wt.	Per cent. lost Wt.	No. of Observations.	Mean gain in Lbs.	Per cent. gained Wt.	Per cent. lost Wt.	Mean gain Inches.	Mean gain Inches.
9	55	1.00	80	20	21	1.12	85	9.5	.87	.43
10	76	.37	61	34	19	2.00	84	10.5	.87	.50
11	97	.62	71	23	30	2.25	80	13.	.75	.60
12	101	1.12	80	17	40	2.25	80	15.	.87	.75
13	86	1.37	81	17	39	1.75	87	10.	1.12	.62
14	67	2.37	77	20	14	4.17	93	7.	1.12	1.00
15	28	2.50	86	14	5	3.00	80	20.	1.25	.75

These defects of home express themselves to the child in poor food, insufficient clothing, improper hygienic conditions and oftentimes as a baneful heritage of a diseased and degenerate constitution.

It is conceded by all biologists that activity of the proper amount and kind is absolutely essential to normal growth.

De Varigny [1] has shown that the size of Lymnola Stagnalis varied with the amount of surface offered for its free activities. Of two vessels of equal volume, but unequal surface, the larger surface produced the larger animal. The lack of opportunities for the proper kind and amount of exercise of the truant during his public school life, both at school and at home, is very probably one cause for his inferior size. Nearly every truant enters into some form of bodily activity on leaving school. Very few ever loaf.

These several considerations indicate strongly that the inferiority of the physical proportions of the truant is caused by poor food, scanty clothing, incompetent, and oftentimes degenerate parents, and very probably a lack of proper activity.

The horizontal lines of the standard plotting paper Charts I and II, when indicating increase in weight, are read "pounds," when used to show increase in height, are read "inches." This plan of plotting facilitates the comparison of the growth in height with that of weight,

[1] De Varigny: Experimental Evolution, p. 79.

TABLE VI.

Table showing the relations between the increase in height and weight during three months, and the time spent in the truant school before the first series of measurements were made.

No. Obs.	Av. Age.	Time spent in School before 1st Measurements.	Gain in Weight. Pounds.	Gain in Height. Inches.	Ratio of gain in Weight to gain in Height.
15	13	1 mo. and less.	3.81	.53	7.2
16	11	2 months.	4.97	.62	8.01
10	11	3 "	4.17	.46	9.00
1	11	4 "	1.50	.75	2.00
2	13	5 "	1.50	.18	8.33
7	10	6 "	2.66	.58	4.58
8	11	7 "	1.90	.57	3.33
2	12	8 "	1.50	.62	2.42
4	11	10 "	2.68	.74	3.62
5	11	12 "	1.99	.42	4.73
1	13	13 "	2.75	2.75	1.57
3	13	15 "	1.75	1.37	1.27
41[1]	11	2 "	4.31	.53	8.13
33[2]	11	8.7 "	2.02	.77	2.62

and exposes a significant fact already mentioned viewed from the point of arrested development. Roberts, Bowditch and others have shown, during periods over which their observations extend, that the most favored class has a mean height of about two inches greater than the industrial classes, and further, that there is an entire cessation of growth at the age of nineteen or twenty in the non-laboring classes; "while in the artisan classes growth is more uniform and extends to about the twenty-third year." This suggests that the *anlage* is originally cut out or planned to fill specifications and dimensions by growth processes, and that if the rate of growth, the building process, be retarded through a scarcity of growth material or other causes, the time for completing the structure is extended. The postponement of the crossing of the height and weight curves in the truant group until the fourteenth year finds an explanation in this theory.

[1] Average below four months. [2] Average for all above three months.

TABLE VII.

Showing the rate of growth of small, medium and large boys of Worcester Public Schools and Truant Schools of Massachusetts during three months and one week.

	PUBLIC SCHOOL BOYS.												TRUANT SCHOOL BOYS.											
	SMALL.				MIDDLE.				LARGE.				SMALL.				MIDDLE.				LARGE.			
Age.	No. Obs.	Mean Weight.	Gain in Weight, lbs.	Gain in Height, in.	No. Obs.	Mean Weight.	Gain in Weight, lbs.	Gain in Height, in.	No. Obs.	Mean Weight.	Gain in Weight, lbs.	Gain in Height, in.	No. Obs.	Mean Weight.	Gain in Weight, lbs.	Gain in Height, in.	No. Obs.	Mean Weight.	Gain in Weight, lbs.	Gain in Height, in.	No. Obs.	Mean Weight.	Gain in Weight, lbs.	Gain in Height, in.
9	18	56	1.32	.91	18	62	2.01	1.21	18	68	1.47	1.22	7	53	1.46	.53	7	56	2.06	.64	7	61	2.33	.87
10	25	58	.75	1.32	25	63	.53	.98	26	74	.20	.70	6	60	.70	.78	6	63	2.91	.51	6	76	3.00	.49
11	31	62	.51	.91	32	72	.97	.96	32	78	.94	.99	9	62	4.19	.76	10	68	2.42	.36	10	82	1.47	.53
12	32	68	1.26	.81	33	75	1.31	1.11	32	88	2.36	1.15	14	65	1.89	.71	13	72	1.44	.72	13	81	3.83	.96
13	29	73	1.31	1.08	28	81	1.28	1.14	28	93	1.66	1.24	13	70	1.32	.48	13	81	3.16	.68	13	92	4.22	.92
14	23	78	1.82	.98	22	91	2.17	1.11	22	113	2.41	1.57	5	73	1.93	.71	5	89	2.55	1.02	4	99	4.43	3.18
15	8	90	2.47	.98	9	101	1.77	1.99	9	119	4.10	1.44	–	–	–	–	5	95	1.75	.95	–	–	–	–

The results of the second series of determinations furnish additional evidence to the proposition that the truant suffers from arrested development. It has already been stated that the truant group gained more in weight and less in height during the three months than the public school growth. (Chart III.) What do these facts mean?

In interpreting these facts two things must be borne in mind: first, the physical condition of the boy before entering school; second, the treatment received at the truant schools.

From their own testimony I find that out of 160 boys only four returned directly home from school. Of the 156 that deserted both home and school, 13% went to other towns, returning home only when exhausted from fatigue and hunger, or brought back per force. Of those that remained in their own town, a portion loafed on the streets and bunked out until caught, some committed petty offenses and were immediately arrested, several sought whatever places of amusement the season of the year offered, which has already been mentioned. Every truant is brought into a justice court, from which he receives his commitment to the school—an experience not calculated to whet appetites or favor digestion.

To this may well be added the testimony of the officials of the truant schools.

One superintendent says: "Every boy that has entered this school (over two hundred) comes hungry, dirty, ragged and never free from vermin. As a consequence of these things his digestive organs are out of order, his blood poor in quality, and his nervous system under constant strain."

Another testifies "that their home comforts and influences are often of the poorest sort, making directly against the better impulses of the boy." On the other hand those who have deserted the better class of homes, shut themselves off from the immediate supplies of life, so that hunger, dirt and rags soon overtake them. Another says: "You will notice that after we have got the effects of cigarettes out of their systems, they have increased in weight rapidly."

The truant schools are models of sensible hygienic conditions. A serious effort is made to have the truant receive the full measure of these benefits. Food is abundant, well and regularly served. Regularity of habits are enforced. Hours of work, study and recreation suitable to the boys' strength and needs are provided. The situation is this: An organism more or less exhausted through lack of nutrition, unwanted acts committed by itself and others, and by fear, is suddenly transferred to an environment rationally planned to meet all its needs. Under such circumstances what ought one expect the organism to do?

The facts found concerning the truants urge the answer: that it fleshens rapidly but develops very slowly. Additional evidence is given from the following consideration: 33 boys who had spent 8.7 months in the school before the first measurement, gained an average of 2.02 pounds per boy, and .77 of an inch in height during 3 months and 1 week. (See Table VI.) The ratio of the gain in weight to the gain in height being 2.62, while 41 boys who had spent on an average 2 months in the school before the first measurement, gained an average of 4.31 lbs. per boy and .53 of an inch in height—the ratio of the gain in weight to gain in height being 8.13. The average age of each group is 11 years. In short the rate of the increase in weight and height over the period already specified, is dependent on the time in which the boys have remained in the school. The longer they remain the more nearly does their rate of growth approximate that of the public school boys.

It appears as if nature is profiting by the experience gained during

the adverse periods of the organism by laying up a superabundance of food supply at the very first opportunity. The organism becomes a sort of repository for food stuffs; but being assured that the crisis has passed, that the desert is crossed, she directs her energies to the more normal and higher processes of nutrition.

Bearing in mind the physical condition of the boy before entering the school, the sensible hygienic conditions of the schools, the dependence of the ratio of increase of weight to height to the time they remain in the school—the longer they remain the more nearly normal the ratio becomes, and also the exceeding susceptibility of the changes in weight to seasons of the year,[1] temperature and the like, are we not justified in interpreting the excessive gain in weight of the truant over the public school boy as an expression of the poor physical condition of the former responding readily to a superior environment?

What explanation is to be given to the fact that the increase-height curve of the truant falls below the increase-height curve of the public school boy? Doubtless there is a partial explanation in the fact that the period of maximum increase in weight for a given individual is not coincident with maximum increase in height. The very careful work of Malling-Hansen[2] on this subject shows that the body weight of boys from 9 to 15 passes through three yearly periods, a maximal, a middle and a minimal period, and that likewise there are three yearly periods in the increase in height. The maximal period for weight-growth begins in August and ends the middle of December, while the maximal period increase in height extends from the last of March to the middle of August. Schmid-Monnad[3] finds likewise three yearly periods of growth in weight. The maximal period extends from August to October, middle from November to January, and minimal from February to July.

The point urged here is that variations of increase in weight occur in the normal development of the child, and that increase in weight and height are not concomitant processes for the individual. So that it appears that the small increase in height of the truants during this particular period may be partially due to the excessive gain in weight. But there is still another consideration, which is more conclusive, since it is in harmony with the general laws of growth. Porter[4] has shown that "the comparative rate of growth of dull, mediocre and precocious children of the same sex is the same at all ages from 7 to 16 inclusive." The results of the present investigation show that the law holds true, with two exceptions, viz., at the ages 10 and 11.

The weights of each of the several ages were arranged in a continuous series, after the fashion of Galton,[5] beginning with the smallest weight and ending in the largest. These series were each divided into three equal groups denominated, *small*, *middle* and *large*. (See Table VII.) A comparison of the averages of the increase in height of the three groups shows that the *heavier* the boy, the *greater the increase in height* for all ages except *10* in the public school group, and *10* and *11* in the truant group. The law, then, is, disregarding exceptions, the heavier the child of any age between 9 and 15 the greater the increase in height over a given period. Now, if one connects with this law the fact that the public school boy is heavier than the truant of the same age, the reason for the greater increase in height of the former over

[1] Weir Mitchell: Fat and Blood, p. 19.
[2] Malling-Hansen: Perioden in Gewicht der Kinder und der Sonnenwärme. Copenhagen, 1886.
[3] Schmid-Monnad: Zeit. f. Schul. pfl. No. 6, 1896, p. 318.
[4] Porter: Trans. of the Acad. Sci. of St. Louis, 1893.
[5] Galton: Natural Inheritance.

the latter is quite apparent, and it also furnishes additional evidence of the arrested development of the truant.

Conclusions.

Pedagogical. If the results of this investigation emphasizes any one group of facts more than another, it is the intense fondness for out-door activities and a spreadout, diffused universal interest in man and nature on the part of the child. Running away and truancy are forcible protests against the narrow and artificial methods of the school room, a rebellion against suppressed activity and a denial of free out-door life. Cannot pedagogy take a more practical account of these great fundamental instincts and activities? In this connection it is worthy of mention that the boys of the truant and reform schools of this State, that are provided with manual training and plenty of muscular exercise, have no desire to escape from these schools. The instructor of Sloyd in the Lyman Reform School,[1] says: "During the year not a boy belonging to the Sloyd classes has attempted to escape from the school." This is all the more instructive when it is remembered that 4.8% of the 144 boys of that school did escape during the school year 1895–96. One superintendent says: "They take the greatest interest and delight in owning and cultivating a truck patch or garden." In two of the truant schools book instruction occupies but 3 hours during the day. The rest of the day is given up to manual training, in-door and out-door work and play. The principals informed the writer that many of these boys returned to the public schools ahead of the grade corresponding to their age. They had gained a grade.

The observations and conclusions of Richardson[2] are instructive at this point—he says: "It may be stated generally that the psychological limits of the capacity of attention and of profitable mental labor is about one-half the common school time of children, and that beyond that limit instruction is profitless. The following is one of the several illustrations cited by Richardson in support of his proposition: "In one large establishment, containing about six hundred children, half girls and half boys, the means of industrial occupation were gained for the girls before any were obtained for the boys. The girls were, therefore, put upon half-time tuition, *i. e.*, their time of book instruction was reduced from 36 hours to 18 hours per week, given on the alternate days of their industrial occupation, the boys remaining at full school time of 36 hours per week—the teaching being the same, and the same system and by the same teachers. . . . . On the periodical examination of this school, surprise was expressed by the inspector at finding how much more alert, mentally, the girls were than the boys, and how much advanced in book attainments. Subsequently industrial occupation was found for the boys, when their time of book instruction was reduced from 36 hours a week to 18; and after a while the boys were proud, upon examination, to have obtained their previous relative position, which was in advance of the girls. The chief circumstances effecting this result, as respect the boys, was the introduction of active bodily exercise, the naval and the military drill, and the reduction of the duration of the school teaching to within what appears to me to be the psychological limits of the capacity of voluntary attention."

Every one admits that our instruction should begin just where we find the child. In fact it *must* begin there if we would teach. But where and what is the child world? Of what is it composed? To

[1] Second Annual Report Lyman and Industrial Schools, 1896.
[2] Richardson, B. W.: National Health, pp. 99–104.

get acquainted with the psychic world of animals biologists study their activities, their desires, their fears, etc. Can we do any better in getting acquainted with child life than to follow the example of the biologist? If pedagogy adopts such tactics what disposition must it make of the activities, interests, desires, emotions, etc., expressed by the child in the present investigation? Has fondness for water, for fields and woods, for plays and activities, *not supervised*, the period of focusing down of interests, of forming attachments for certain objects and persons, the period of lying, stealing, and hardness, and of checking up in physical development any lessons for pedagogy? Are we instructed by an active child saying: "I disliked to go to school *every* day," or "It was too fine out doors to stay in school," or "I disliked to stay in school *five* hours," or "I liked the fire drill," or "It was *hard* for me at home and at school," or, "I liked the gymnastics at school?" The large per cent. of truants defective in sight and hearing is a fact that urges most strongly the necessity of teachers having a definite knowledge, gained by actual tests, of the strength of these most illuminating "windows of the soul." There should be no excuse for the modern teacher's guessing and blundering over such matters when a little time, with very simple apparatus, would yield sufficient data for intelligent action.

Sociological. The intimate correlation between the child's home comforts and its emotional and ethical life suggests some very fundamental questions concerning the connection between property and good citizenship.

Renewed emphasis is given to the old old fact that the wholesome influence of the home rests solely on the physical and mental vigor and integrity of the parent. The fact that so many of the truants (98%) do not return home, exchanging readily its comforts for hunger, bunking out, stealing, breaking and entering, and the like, indicate two things, first that their homes have a minimal attractiveness and power over their lives, and second, that their moral sense, self-respect and ambition are greatly wanting, since they abandon themselves so readily to more primitive forms of civilization. Morrison[1] says: "In very early life unadaptability to social surroundings usually shows itself in the shape of truancy, vagrancy, wandering habits, in short a disposition to revert to the nomadic stage of civilization. The greater the demand made by society on the child, such as the demand in the present century that he shall regularly attend an elementary school, the more clearly is the extent of the nomadic instinct brought to light. Of course, in all cases where parental supervision is of an efficient character, the wandering impulse is usually corrected and extinguished, but when there is little or no parental supervision, a child of nomadic tendencies is apt to be picked up by the police as a vagrant." Interpreted biologically, and in accord with the assumptions and experimental evidence already brought forward, either the metabolic rate of the organism is not keyed to respond advantageously to the increasing stimuli of its environment, or a portion of the stimuli necessary to support the rate of metabolism is absent, the former being due, doubtless, to heredity, the latter to insufficient nutrition; but in either case the organism moves half instinctively half purposely about for conditions in attune with its rate of metabolism or for conditions necessary to support that rate that is essential to well being.

Psychological. What does such an investigation contribute to the psychologist? To the writer it seems his gain depends largely upon his point of view.

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[1] Morrison: Juvenile Offenders, p. 58.

Every geologist of repute, since Lyell, defends the thesis that the present geological forces are the same in kind as those that brought our earth out of primeval chaos and made it possible for organic existence. The modern geologist observes carefully the operation of pressure, heat and cold, wind and rain on our present land forms, and from the facts here gained explains the processes of mountain, plain and valley building; in short, traces out the causes that have produced the manifold land forms of earth. This is practically the view and method that guides the investigation of the genetic psychologist. Observe, for a while at least, those forces which we have reason to believe have from the beginning of organic life been instrumental in differentiating the activities of the psyche, that have impressed upon the soul some of its deepest instincts and tendencies.

The results of this article, surveyed with these general notions in mind, are more suggestive than otherwise to the psychologist. A few of the more prominent suggestions and problems are here given.

The discarding foot and head dress and garments by the little runaways (case 9, II, group of runaways) is certainly suggestive of an effort, blind of course, to realize the conditions enjoyed by primitive man in chase and flight. The intense longing and fondness of the child for out doors and water is in excess of any desire that might have been formed out of individual experience. The various forms of shelter enjoyed at present, even the very best, are so recent in the history of the race, that to the child, and even to the adult, are not entirely free from caginess. The behavior of animals in captivity is an interesting background to this subject. The differentiation of the water psychoses has gone on continuously since the beginning of life. In fact the whole of the anatomical ground plan, and much of the details of the vertebrate series were worked out while life still moved in a water medium. But even after migrating to the land, it has ever been compelled to make daily visits to bodies of water. For primitive man to wander too far from streams of water was to suffer, if not to perish from thirst. He sought streams for their fish, lay in ambush along their banks to capture animals that came to slack their thirst. Early travellers and wandering tribes cast their tents beside a stream of water. In modern times many of the ills of man are relieved by a great variety of water cures. Certain forms of madness are detected by pouring water before the unfortunate. In view of all these things should we wonder at the water psychosis so pronounced in childhood?

The peculiar mental and bodily state induced by the sudden loss of direction and the sudden realization of being alone, while running away, may have some connection with that sense of helplessness and defencelessness that comes over all gregarious creatures when suddenly separated from their companions or natural protectors. The lost cry note of the chick, the turkey, the wild goose, the behavior of the dog when lost from his master, the distress of the horse at the separation from a mate, all testify to the profound effect that loneliness has even on lower creatures. The child, which a moment before had no regard for home, companions, or any fear of whatever obstacles it might meet, is suddenly transformed into a timid, inactive, powerless creature. Volition is gone, movements are without precision. There is a folding up, a shrinkage of the soul in the presence of an unknown and unfriendly environment.

ACKNOWLEDGMENTS.

Without the co-operation and personal assistance of a number of school officials, teachers and students throughout the country, this paper could not have been put into its present form. The writer,

therefore, owes a great debt of gratitude to the officials and teachers of the truant schools of this and other States for their cheerful and ready co-operation.

I wish specially to thank Dr. G. Stanley Hall for suggestions in the treatment of the material, and Dr. W. H. Burnham for very helpful criticisms and citations to literature. To Dr. C. F. Hodge I am thankful for many signal favors, both in the laboratory investigations and for literature. I am also very grateful to the several members of Clark University who sacrificed much of their valuable time to assist in the measurements of the public school boys. This work was much simplified, and conducted under the most pleasant conditions, through the efforts of Supt. Carroll, of Worcester Public Schools, and the hearty co-operation of the principals and teachers. These, and a multitude of correspondents, will pardon for the sake of brevity this slight acknowledgment of many valuable contributions.

L. W. K.

CHILD FETICHES.

By George M. Gould, M. D., of Philadelphia.

It is now an almost trite and over-emphasized truism that "the ontogeny repeats the phylogeny," and we have heard much concerning this fact as regards child study. But, so far as I have been able to learn, the subject of the persistence or inheritance of fetichistic habits in children has but little or not at all attracted the attention of students or observers. And yet it is a fact that most every intelligent parent or child-lover must have seen or negligently passed over. The data adduced in the excellent study of Dolls, by A. Caswell Ellis and G. Stanley Hall (The Pedagogical Seminary, Vol. IV, No. 2), although allied, are by no means psychologically identical with those of the phenomena I shall illustrate, and in some respects are quite dissimilar. Some phases of doll psychology doubtless tend to fetichism, but so long as the doll is, properly speaking, a veritable doll, it is an object of affection, and its existence flows directly or indirectly from the reproductive instinct. The savage's fetich, however, is not born of this instinct, and many children exhibit characteristics which can only legitimately be connected with the fetich worship of primitive peoples. The following instances are either personally known to me or are vouched for by friends whose report I can trust.

Case I. A. M. was three years of age, when one day his father, who is a wealthy gentleman, told him that among some of his poor tenants there was a little boy whose name was Joe Dean, who was a bad little boy and did all those things that children do who are not rightly brought up, and such as he was sure his child would never do. At once this Joe Dean became associated in the child's life with all that was evil. Little A. was not a bad boy, but would indulge in fits of perverseness, such as any child might have who preferred his own way rather than that of the parent. When these naughty times came on him he would then say he was Joe Dean, and retiring to an adjacent room, he would close the door, and his mother would hear him stamping and shouting and bidding Joe Dean go way. Soon he would return with the tears all dried up and a bright, smiling face, assuring his mother that Joe Dean had gone, and that her good boy A. was with her once more. This habit was continued until he was 6 years old. One day, after his father and uncle had returned from the city, he quietly said, "I want all of you after dinner to come out on the lawn to a funeral;" they said "whose funeral?" "Never mind," he said, "I'll show you." With anxiety they waited the time set by the the little boy, when on going to the lawn, they found he had dug a little grave, and beside it was a small piece of round wood about the length of the grave. This he told them was Joe Dean, and he was going to bury him, and that would be the end of the bad boy. He had taken one of his aunts into his confidence, and had her write on a piece of paper the following epitaph, which, after the grave was filled up and supplied with a small white pine head stone and a foot stone, was spread out on the grave; it was found to contain these words: "Here lies the body of Joe Dean, never to come to life again." (It is the family belief that the words were of his own prompting.) From

that moment the fits of anger and freaks of disobedience disappeared. His whole nature changed, and up to the present time, when 13 years of age, he has never been in such a state of mind that the character of Joe Dean could be associated with his daily life.

Somewhat similar to the foregoing is the following:

Case II. When about two years of age, D. assumed a second self, who was ever present with her in angry moods, and on retiring to the corner of the room, or to an adjacent room, D. would actively shake her skirts and bid "Sarah Jane" begone. "Get out, Sarah Jane!" she would say, and in a few seconds all the cloud of anger, crying, and fretfulness would disappear. One day she returned from Sunday School and told her grandmother that she had met a lovely girl there whose name was Hossie Grafell. Upon further questioning her at that time, it was found, according to her report, that Hossie Grafell's mother was living, and that her father was dead, and that she was an only child, and that she did n't say what D. said. When asked to explain, she replied: "I say I won't go to bed," but Hossie Grafell says, "I would rather not go to bed." A former nurse girl, without our knowledge, had taught her to say, "You nasty thing." She said Hossie Grafell would not say that. Hossie Grafell was a dear child, and only said the things which pleased her mother. So D. assumed that when she was good, she was "Hossie Grafell," and when she was bad, she was "Sarah Jane." This was continued for several years. It is needless to add that Hossie Grafell was a pure myth.

Case III. N. O. is a boy at present eight years of age. From earliest infancy he has constantly kept by him "Bowsy," a little Canton flannel stuffed dog, about six inches high, with bead eyes, straight tail, and four stiff legs. Up to two or three years ago he would never be without this companion for an instant, but carried it in all of his plays, from the time that he would wake up until he went to sleep. Some two or three years ago he quit carrying it constantly in the day time, but never would go to bed without it. It has been forgotten several times in travelling, and the child's grief was so great, and the danger of producing illness so apparent, that it had to be shipped to him at once. No similarly made doll or effigy would do, and the mother has had to be very careful to have a duplicate on hand all the time in case of loss of the original, but the duplicate is made with scrupulous care, so accurately like the old as to deceive the child; at least he always pretends to think it the same one. Sometimes when it has been impossible to get the original or duplicate, the child has only gone to sleep, at nights, after long crying and sobbing. About two years ago he became somewhat sensitive about the habit, fearing that others would ridicule him, but at the present time he shows no sensitiveness whatever upon the subject, although the parents and servants are careful not to ridicule him. Neither the parents or his little sister by action or word, either of encouragement or discouragement, have seemed to have any influence upon his addiction to "Bowsy." A year or two ago his mother made a dog exactly similar to the old one, but with a curled tail instead of a straight one. He accepted this addition to the family, but frankly stated that he did not care anything for this dog, that it should not be called "Bowsy," but might be called "Browney," and might, if it pleased, go to bed with him, following after "Bowsy."

I think the two following instances, when carefully scrutinized, will also be recognized as having a different psychologic origin from that of doll-loving.

Case IV. "A. P., when an infant, was weak, and was always wrapped up in blankets. She selected one certain blanket and would never go to sleep without it. She personified it by the name of "Esther," and

always regarded this blanket with a kind of affection and had a sort of companionship with it. As she grew older the blanket shrunk until it was so small that she could only lay it up to her face, and, as it were, breathe through it. She took it to boarding school, and her companions could not shame her out of going to sleep with it. At the age of eighteen she went to Europe, making a trip up the Rhine and to Switzerland, etc., with a party of school companions; the blanket was always with her at night. At a fashionable boarding school it was likewise her companion. The last time I saw this blanket it was about the size of a large pocket handkerchief, yellow and much darned. Miss P. has always been able to find it in the dark by the feel of it, and to distinguish it from other flannel by its own peculiar odor. It is as well beloved as ever, although Miss P. is now twenty-seven years old."

Case V. A cousin of A. P., when a little boy, was accustomed to put himself to sleep by rubbing the back of his hand on the starched and tucked end of the pillow slip with which his crib was provided. He was pleased with its smooth feeling and coolness, and would not go to sleep in any position in which he could not move his hand gently to and fro over the starched and ironed surface. This sort of pillow slip was carried when travelling, and his mother was careful to have such slips taken to the country home. His devotion to these peculiar pillow cases was such that when going to school he insisted on taking them from home, and declared that it was impossible for him to sleep soundly without them. He invariably went to sleep by rubbing the back of his hand gently to and fro over the hard, smooth surface of the tucks and hem. The last heard of him was when he was about fourteen or fifteen years old.

Case VI. F. J. was an intelligent and perhaps neurotic girl of seventeen or eighteen. As long as she could remember she had been accustomed before retiring to give some object in her sleeping room three caresses or pats. When she got into bed without doing this she felt compelled to rise and do it before she could go to sleep. The object was always some pleasing thing, such as a vase, a picture, a box, or bit of furniture. When she occupied the same room for a long time the object to be patted was changed occasionally, according to her whim, but was not changed each night. She would often choose one thing for months together. When away from home or travelling, on entering the room which was to be her sleeping room for the first time, she always unconsciously made a mental selection of the thing that was to receive the three pats.

Case VII. F. B., from early childhood, has been in the habit of using a peacock feather or whip-lash dangled over a shut book to aid her in a method of self-amusement. The feather was first employed, but when this was broken by usage a small whip with a limp lash took its place. Several such whips were used up during the years of her childhood. The end of the lash was held fluttering over the Kate Greenaway figures of a closed picture-book, and with the eyes directed to the figures or the whip-lash, the child would talk to herself by the hour. One might suppose this to have been a kind of self-hypnosis and perhaps implying a morbid habit of mind, but the child was perfectly normal-minded in all other respects, healthy, and happy, and when carrying on this soliloquy was not hypnotized or "entranced" and apparently was as natural as a child when playing alone and chattering to itself or to a doll. She preferred to carry on this procedure when alone or at least when unobserved, and would not do it at all when strangers were present. The soliloquies when overheard by the parents or her sister were very interesting and peculiar. They were

in early childhood almost invariably metrical and rhymed, and if a rhyme did not come pat, one was made whether it was a real word or not and also regardless of the sense. Usually there was a thread of narrative or of logical sequence more or less clearly running through the jingle. After a few years the child stopped versifying and rhyming and told fairy stories and all sorts of tales to herself, the whipdangling never failing. The parents describe these stories as partaking of the *style* but never of the *matter* of the fairy tale or story book last read. All the incidents, names, etc., etc., were original and never an echo or memory of the story read by herself or to her. There was never any tendency to indulge in this amusement to excess, and as her (very intelligent) parents were alert to watch for any evidence of morbid mental action and yet failed to detect such, she was allowed to continue the habit almost daily until the child was about fourteen years of age. A physician then advised that it be gradually discouraged, and this was successfully done, though even at the present time when she is over twenty years of age, a bright and intelligent woman, she likes occasionally to soliloquize by the aid of something held quiveringly over her book.

Case VIII. Dr. H.'s two daughters (now grown up young ladies), from the age of five or six to about ten or twelve, had a smooth, oblong stone about six inches in diameter, with which they always played and would never let it be thrown away. They called it "Tom Stone" and carried it about in a baby carriage, but did not think of it at all as a doll, and their remembrance of it to-day is clear that they did not have such feelings toward it as children have towards dolls; they never dressed it up as a doll. One of the interesting things about their feeling toward "Tom Stone" was that they constantly put it into the sunshine to get warm. They are now unable to determine whether or not this was done to make the stone happier by the warmth or whether the warmth felt more comfortable to the hands.

Case IX. Two ladies tell me that when children they formed among themselves what they called a "missionary society" for mice. Miss H. had kept about her body for a year a little white mouse. It would nestle in her sleeve, in the waist of her dress, etc., all the time. After the death of this white mouse the girls formed the "missionary society" so-called, in which, without the knowledge of the mother, they fed mice secretly, until finally Mrs. H. found her house infested with mice, and had to set traps, in which over 30 were caught.

Miscellaneous Cases. Miss H. had a stump some distance from the house, of which she was very fond. For a year or two she would constantly visit this stump and sit by it whenever possible. She was greatly grieved when this stump was pulled up.

Mr. R., now 40 years of age, has a piece of flannel blanket which he has kept since childhood, and always demands it when he is ill or when he gets hurt, calling it "his baby." He is really miserable when ill, if he does not have it, and when he was hurt and taken to a hospital, he actually sent home and got it.

Mr. H., when a boy, always twirled and curled the corner of the blanket on going to sleep.

I know of a lady who preserved two old spools, with a string in them, with which she used to play when a baby, and although now a married woman, keeps them in the upper drawer where she can look at them occasionally.

Miss H. has always been attached to a little down pillow with a long cover. She is, to-day, a girl of 20 years of age, and yet protests that "it feels better than any other pillow she ever had." She now always carries it away to school with her when she goes.

A little child of 4, in a hospital, who had never been able to play with a hoop, secured the wooden hoop of an old keg and kept this about its neck all the time.

It appears evident to me that the foregoing histories are not instances of inheritance or atavism, but, like many things thus classified, they are simply instances of *de novo* productions and habits which have arisen from precisely the same causes and conditions as similar ones in the adults of savage peoples. One might philosophize at much length upon their *raison d'être* without exhausting the suggestions aroused, and perhaps not exactly hitting upon the true explanations. I take it that very often the fundamental reason of origin may be the need of the mental mechanism of these jelly-like developing beings to objectify psychic things or habits in order to intensify and realize them. Materialization, real or vigorously assumed, is necessary to give a sense of validity and reality, and, as it were, to etch deeper into the mobile protoplasmic substratum of thought and feeling.

Perhaps, also, the loneliness and alienation which grieves all of us, the isolation which is a necessity of individuation, is dumbly and dimly felt by these young exotics, and the hunger for companionship becomes manifest in fetichistic habits.

Often, too, many mixed motives compete or complete. We smile when a simple mind thinks his watch superior to that of others, and in the child the beginnings of the egotism of possession are naively shown in fancied superiority of any chance object selected. It has been contended that much religion or theology has its origin in the pride of belief in the superiority of the tribal or national god over that of the despised neighbor.

Once established, of course, the habit intensifies itself by mere repetition.

Almost every writer defines fetichism according to the teleologic bias of his mind. The toplofty definition of Comte was framed to prove his theory of the triple stages of human development. Lubbock's ideas of it as a method of constraining the deities to comply with desire seems also to do violence to the facts, and even the conception of Tylor appears to give the savage too much intention and self-consciousness. In many types mere habit, or satisfaction with the familiar, is quite sufficient to account for the beginnings, and for much of the continuance, of the love or use of an object or of persistence in a method of action on the part of primitive minds. We should not import into these mobile unformed psychic mechanisms our own habits of self-sciousness and purposiveness. Every negro servant at his or her work objectifies some person there in the air, converses with the imagined one, and even "gets mad" at him. Charms and talismans indicate quite as often mere satisfaction in familiarity, repetition of touch, etc., as they do any desire for things obtainable through the object. The child is also most loyal and doubtless feels some compunction of conscience in failure of faith even to a toy, to an imagined other, or in neglect of an oft-repeated manner or method of action. Even agreeableness to the touch of an object may undoubtedly influence the adult judgment and determine weighty affairs of life. We need only a more subtle and discriminating observation of the unnoticed reasons for our own prejudices, likes and dislikes, to be able to comprehend the most obstinate fetichisms and superstitions of the plastic mind of the child.

SOME REMARKS ON THE PSYCHOLOGY OF NUMBER.

By Professor JOHN DEWEY.

In the October, 1897, number of THE PEDAGOGICAL SEMINARY Mr. D. E. Phillips has presented a very considerable bulk of data bearing upon the question of the development of the number sense, from the standpoints both of experimentation and collection of illustrative material from child life. He has also presented a theory in interpretation of these facts. This theory, as I understand it, separates the counting process, in which number undoubtedly has its origin and development, from the consciousness of quantity, holding that the number idea in the form of a series, is a distinct process psychologically and pedagogically from the ratio idea; or, as it is stated in the summary on page 277, "Number as measurement is not the whole of the development of number but only the complimentary side of the series idea; number as measurement can by no means explain all the mental phenomena of numbers."

The matter has, I think, sufficient psychological interest of its own to justify further consideration; and this consideration is specially urgent when we note that according as we separate the counting or series idea from the quantity idea, or connect it organically with the latter, we get two quite different educational procedures indicated. I propose, accordingly, a further discussion of the matter, based for the most part upon Mr. Phillips own data and treatment.

The first point which appears to require examination is the question of the origin and development of the series idea, both in the concrete and the abstract. At the outset I experience considerable embarrassment in interpreting Mr. Phillips's statement (page 234) that "nearly all children, no matter how taught, first learn to count independently of objects, in which the series idea gets ahead," or again (page 236) "That the naming of the series generally goes in advance of the application to things." My difficulty is in understanding what Mr. Phillips means by the "naming of the series." His argument demands that this naming of the number series be genuine counting or enumeration; the facts which he educes in support of his proposition relate to the mere repetition or rattling off of a series of number *names*. I find it difficult to convince myself that Mr. Phillips has not distinguished between two such totally different matters as naming a number series and repeating a series of names of numbers: but careful reading of his paper has not assured me that he is free from this confusion. For example on page 231 it is said: "M knew number names long before numbers themselves, and applied them to anything indiscriminately, the numbers seldom agreeing with the number of objects," Page 232: "Have children of the kindergarten count, and you will find that they leave out the difficult names and carry on the series the same, often repeating without being conscious of it . . . . "M—— When learning to count things or impressions, would count eight, nine, for one object. The number series always get ahead." "This child learned the figures in order; *i. e.*, 1, 2, 3, 4. He could tell them in this way up to forty, but if they were changed around he would not know but what it meant the same. He associated number with place or order only." "Most children I have taught," says an experienced teacher, "*will* learn the names in-

dependent of things. For sometimes they do not associate them as how many of anything, but merely the name of the series." . . . . "Children learn number names as they learn other words, by hearing them repeated. They use them without knowing their respective values. They apply them promiscuously calling three objects ten as the case may be. Very frequently they have the idea that the number name belongs *to the object in whatever order among others* it is placed." (Italics mine.) A number of other instances could be quoted, but it is probably enough to refer to the summary of data on page 249, where it is stated that three hundred and fourteen out of three hundred and forty-one returns say that children learn *number names by rote as an abstract word.* (Italics mine.)

While, I repeat, it hardly seems credible that Mr. Phillips could confuse counting with the repetition of number names, yet the foregoing quotations, which might be largely multiplied, point in this direction. It must be borne in mind that these statements are not isolated, but are the substance of the evidence educed by Mr. Phillips to show that the formation of the number series precedes the application of number to objects. It is hardly necessary, I suppose, to argue that since this supposed evidence refers in reality only to the learning of certain words, it is just as irrelevant to the proof of Mr. Phillips's proposition, as would be the evidence that children learn to say the alphabet before they count objects. The repetition of number names is no more counting than is the saying of counting out rhymes like: "Eeny, meney, mony, mi," etc., in fact, hardly as much so, for in the latter there is a genuine pairing off, or crude equating which approaches the number concept. It is barely conceivable that Mr. Phillips does not mean to attribute any numerical significance to this saying of number terms (though if such is the case, I utterly fail to see why it should be exhibited as indicating that counting goes in advance of application of number to things), but merely means to indicate the satisfaction which the child takes in any series or succession. I do not doubt this latter fact at all, nor do I doubt that interesting psychological results could be got from a careful study of the child's delight in successive recurrences. One group of Chicago kindergartners, for example, has been making a careful study of this matter and finds the child's interest in statements of: "This is the house that Jack built" type, so strong that a large number of rhymes and stories along similar lines have been constructed to the children's eminent satisfaction. Nor do I doubt that such phenomena are indirectly relevant to the psychology of number; but it must be clearly recognized that such facts have absolutely no power in support of the statement that genuine counting or formation of a real number series precedes the application of number to things, which is the point in question. Moreover, so far as these facts have any connection with the number sense at all, the essential thing is to see under what circumstances the mere interest in seriality of repetition becomes transformed into an interest in that particular form of seriality which we term counting. To confuse series interest in general with the series interest in its counted off form, is about as flagrant a case of the fallacy of accident as one could imagine.

This brings us to the question which is of fundamental importance. What is the origin and significance of the interest in series and succession? Secondly, under what circumstances does this assume the numerical form? I begin with the first point. Mr. Phillips's Psychology of Succession seems to me somewhat unnecessarily crude. On page 231 he says: "Succession of some kind is the earliest and most continuous thing in consciousness. Series of innervations, touches,

sounds, sights, etc., are the constant things in consciousness; one series only gives way to another." Pages 227, 228: "Changes in consciousness are continually taking place produced by the varying impressions from all the senses. Consciousness is not one continuous impression, but an innumerable multitude of successive changes. . . . . As already stated, without doubt different senses contribute to these ideas." Page 229: "The series idea is established by a multitude of successive and rhythmical sensations conveyed through the different senses."

I call this psychology crude because it seems to confuse the *de facto* occurrence of changes in consciousness with a consciousness of such changes, this latter being necessary to any consciousness of a series; and because it implies that sensations, simply as sensations, come to us, individualizing themselves, and also arranged in series. Now one cannot, intelligently, watch a baby for fifteen minutes without seeing that there is a very great difference between distinctness and orderly sequence in sense *stimuli* and definiteness and sequence in *conscious* sensation. It is a matter of great difficulty, requiring several months of infant life to secure ability to pick out a distinct sound, color, touch, or taste at all. The child's consciousness certainly begins with a sense blur or confusion into which specification is only gradually introduced.

Instead, then, of taking for granted the existence of a series, supposing that it is adequately motivated by the mere occurrence of different sensations, we have to discover the principle through which the original blur is specified into definite states of consciousness, and these serially ordered with reference to each other. Of course an adequate discussion of this point is out of the question here, but, in order that we may have an idea of the origin of succession to put beside Mr. Phillips's, I would make the following statement: It is the motor reaction or process of adjustment which breaks up the sensory blur into definite states, and it is the continuity of motor adjustment (corresponding to habit) which arranges these into a series. Fortunately for our discussion all the evidence that Mr. Phillips brings up points in this direction. For example, page 229: The cases given of "reproducing or following a series" are all motor. It is not mere having of sensations; it is throwing, repeating strokes with the clock, rolling mud balls, nodding the head, arranging pebbles, etc. On page 233, it is expressly stated: "A movement of some muscle, as the toe or finger, or nodding of the head, can be observed in nearly all children when counting at first." On page 234, instances of such motor reaction are given; also on page 249, under the caption of "Tallying by Beats;" on 250, in Miss Shinn's valuable record, things were enumerated by touching them, taking nuts out of a box, transferring objects: and once more on page 252; so also page 254. So striking is the evidence, that Mr. Phillips himself, in his final summary of conclusions on page 277, says: "Some movement is perhaps unavoidable in the early stages of counting. If the motor element be a necessity of all thought it is even more so in following an abstract series." The term "following" perhaps throws some light on Mr. Phillips's confusion. It seems to indicate that the series is already there and that the movement simply parallels the members of the series as they come and go. But this confuses the adult standpoint with the child's. The child *makes* the series *by* the movements: that is to say, by movement he interrupts the vague continuum and introduces definiteness or individuality.

We thus get a basis for interpreting the importance (which Mr. Phillips does well in emphasizing) of ryhthm in the formation of an orderly series. This subject is also of course too large to go into, but

Dr. Bolton's important investigations may be referred to. One passage given on page 224 may be quoted: "The subjects were found to be unconsciously keeping time by tapping, nodding, etc., at every second or fourth click. When movement was restrained in one muscle it was likely to appear elsewhere. These *movements* are the condition of rhythmical grouping." It is the grouping of minor movements within a larger whole of movement which marks off a mere on-going series into those regular recurrences of stress and slur which make up what we call rhythm.

When interpreted, Mr. Phillips's own data confirm the statement quoted by him from McLellan and Dewey's "Psyschology of Number" "That number is to be traced . . . . back to *adjustment of activity.*" (Page 252.) This is the point worked out in considerable detail in chapter 3, pages 35 to 44 of that book. Perhaps this is as fitting a place as any to say something about the rational factor in number. Mr. Phillips objects to the doctrine of the Psychology of Number (see his pages 243, 244) on the ground that it makes altogether too much of the rational processes of abstraction and generalization, and altogether too little of the instinctive, unreflective side. I shall not charge Mr. Phillips with lack of candor; but either the statement in the book is so confused and obscure that the point is not plainly made, or else Mr. Phillips has read it somewhat carelessly. He certainly is bound, in making his objection, to use the terms abstraction and generalization in the same sense in which they are used by the authors in question. However defective the statement may be, the point is certainly insisted upon that *practical* activity precedes the rational in the *conscious* sense of the latter term; it is pointed out that abstraction first exists practically in simple selection or preference as to ends and means, and that generalization is of the same practical sort, consisting in the adjustment of means to ends; and that only at a later period does this practical selection and adjustment come to consciousness in explicit rational form. The whole moral of the book pedagogically, so far as primary number is concerned, might be said to be this: "Do not teach number either merely mechanically or merely rationally. Give the child something to do which involves the use of numerical considerations in a reasonable related way. Thus he will gain practical familiarity with them, by using them for some purpose and end, instead of in a meaningless, haphazard way, will be forming orderly practical habits of relating, which afterwards will become conscious in real generalization." I quote from page 30 of the book referred to: "The child may and should perform many operations and reach definite results by *implicitly using the ideas* they (that is numbers) involve, long before these ideas can be explicitly developed in consciousness. If facts are presented in their proper connection, as stimulating and directing the primary mental activities, the child is slowly but surely feeling his way towards a conscious recognition of the nature of the process. This unconcious growth towards a reflective grasp of number relations is seriously retarded by untimely analysis."

In view of these facts, and in view of the fact that Mr. Phillips himself, finds the origin of the series in a purely objective basis — the occurrence of sensations, while McLellan and Dewey find it in a practical basis — motor reactions, it seems to me that I am not unreasonable in feeling that Mr. Phillips ought to have welcomed these authors as allies, and as providing a scientific support for his own contention (otherwise unproved) regarding the relation between the spontaneous and the conscious phases of number processes, instead of turning his guns upon them to the extent of two or three of his valuable pages.[1]

[1] There seems to be reason for supposing that Mr. Phillips has been led

We now turn from the consideration of the series in general to that particular form of the series which we call counting. We have already disposed of the confusion between counting process and the mere repetition of number names and hence are ready to deal with the former question proper. In order to define the problem I may refer to an apparent misconstruction by Mr. Phillips of the doctrine of the "Psychology of Number." On pages 227, 243, 267, 273, 274, he implies or states that the ratio idea is insisted upon in that book to the exclusion of the series idea, or at least to the very great subordination of the counting process. Nothing could be further from the mark. The doctrine of that work is that the counting process (the series idea) and the quantitative or magnitude idea, are logically correlative; *hence* the ratio idea. To subordinate the series (how many) to magnitude idea (how much) would destroy ratio, not exalt it. On page 145 of that book it is stated that counting is the fundamental process of arithmetic. On pages 163, 165 the necessity of the counting process proceeding from the mechanical to the intelligent counting, is expressly insisted upon. So again on pages 44 to 51. In fact it is hardly worth while to give specific quotations. The characteristic theory of the book is the emphasis laid upon the principle that counting, the formation of the series, and measuring go together. More than this it is expressly stated both in the theoretical and the practical part that the numbering process or formation of a series, *comes to consciousness* first, and that ratio, *as a conscious idea*, is a later outcome (here, once more, is a difference between Speer's method and that of the book in question).

I do not mention this for the sake of justifying the book, although if Mr. Phillips has gone so far astray in understanding it, it is possible that others have also. I mention it for its value in helping define the real question. This is not whether counting precedes or follows the ratio idea; but what is the *use* or value of the counting process? What is its *motive? Why* do we count? I doubt if anybody would go to the point of absurdity of developing an arithmetical method which omitted the counting side. Number *as* number *is* enumeration. Certainly Mr. Speer, with all the emphasis thrown upon conscious comparison of magnitudes and the statement of result in ratio form, has used counting in the definition of the ratio — my objection being simply that he does not emphasize sufficiently this counting or discrete factor. But the important question, both psychologically and pedagogically is: How shall we *utilize* the counting process? Shall we isolate it, or shall we treat it as having a function in the definition of value? This is all there is to the whole question.

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astray by identifying the principles of these authors with that of Mr. Speer — a procedure which is not just on either side. Mr. Speer is entitled to full claim to originality of method as far as Dewey and McLellan are concerned. It is not just to him to consider his book simply an application of the theory of the "Psychology of Number," nor is it just to the authors of that book to interpret their theory simply in the light of Mr. Speer's practice. There is one fundamental point, I am happy to say, upon which we are in complete accord, that is the correspondence between the number idea and the quantity idea. But both the theory and practice of handling this point are very different. Mr. Speer's method, comparatively speaking, emphasizes the how much or continuity side at the expense of the discrete or how many side; and the two books interpret the conception of relation in very different ways. To Mr. Speer, relating means (upon the whole) intellectual comparison; to the authors of the "Psychology of Number" relating means, primarily, practical adjustment. On page 244, Mr. Phillips quotes a sentence from the "Psychology of Number" and in the same connection, as if it bore upon its interpretation, makes the following quotation: "Reasoning in arithmetic establishes equality of relation. Reasoning in any subject, equality or likeness of relations." This latter sentence is quoted from Mr. Speer. It would be pedantic to make a moral issue of this, but I should like to know by what rule of criticism one is justified in quoting from one author to interpret another. As matter of fact, this statement is quite unlike the doctrine of "Psychology of Number."

I will now state my conception of the origin and development of the counting process, comparing this statement from time to time with that given by Mr. Phillips. My general conception is as follows: At the outset the child learns to count (in the genuine sense as distinct from the mere repetition of a mere lot of words) by *reference* to separate things making up a vague totality. If we take the facts preceding conscious counting, this is evident. The child keeps tally by some movement of his own with some objective fact or event; he equates, so to speak, an action of his own with some action outside of himself. All the evidence that can be educed with reference to the formation of system to number names points the same way — the connection between counting and the toes, fingers, hands, etc. So also does the connection of number with space — noted by Mr. Phillips himself. It is equally evidenced by observation of children in cases of learning to count as distinct once more, from saying number names. I am glad to refer to Miss Shinn's record which completely bears out (though in considerably greater detail than my own) observations which I have made upon three children. For a considerable period there is interest in marking off objects by pairs, one against the other. During this period the idea of two is understood, that of one and the other, but nothing beyond. While this pairing off was marked from sixteen months onward as late as the twenty-eighth month, three could not be counted. Mr. Phillips gives a good deal of concrete data bearing out the statement made in the "Psychology of Number" that counting involves the *ordinal* idea as well as the cardinal, evidence taking the form that the child will identify a given number like three or four with a particular stick or object. In one of my own observations in teaching a girl of three to count upon her hands, in beginning with the thumb it was numbered one. The next time beginning with the little finger the thumb was called five, whereupon she insisted that it was one. This confusion continued for a few days, when the child spontaneously remarked: "Why, you can begin at either end." Up to this time she had never been certain with reference to three; after this she counted intelligently up to ten.

But it hardly seems worth while to go over the specific evidence. The moment one ceases to confuse counting with repetition of number names the proposition that we learn to count, irrespective to application to things, becomes absolutely meaningless. When we count we surely count something. The difficulty in learning to count is the difficulty of distinguishing relations of order from those of mere place or form (see for example the cases on page 242 of Mr. Phillips's article, in which cases of the confusion of form and number are given; so also pages 248, 249.) So great is this demand for something to count, that I have known of a number of children who have reached the period of spontaneous counting who insisted upon saying one one, two ones, three ones, four ones, and so on, and were quite confused when the number was given to them simply as an aggregate. In one case I remember a child of four, who, when something was said to her about seven, was at first confused, and then spontaneously said: "O, I suppose you mean seven ones." Both the positive evidence, then, and the negative (that is the difficulties which children have in learning to count) show that counting arises in connecting, not merely with a series succession, with the *successive ordering of units in a series*, such units being represented by fingers or objects with which the child is familiar. The abstraction previously referred to, necessary to counting, consists in the fact that the child must be able to grasp relative place or order in a series as distinct from absolute place, from spatial

form, or other purely qualitative considerations: a fact adequately proved by Mr. Phillips's own data.

I come now to the period of spontaneous delight in counting—in which counting *is* free from all *explicit* reference to objects. The data collected by Mr. Phillips on this point are wholly in agreement with my own observation and with reminiscences which I have collected of adults regarding the counting period in their own lives (the point referred to on page 26 of the "Psychology of Number.") This is in no wise in contradiction to what has already been said concerning the original connection of learning to count with some spatial reference and distinction. *After* the child has learned to count, the power acquired becomes temporarily an end in itself. The power is set free and manifests itself spontaneously. This is simply in accordance with the general principle of play. This delight in counting comes in the play period of the child's life, as a rule, and evidences the same general principle. Powers originally acquired under some practical (not merely sensible nor merely intellectual) stress, when acquired, run free or on their own account for awhile. The child takes similar delight in walking, running, talking, on their own account, doing them for the mere sake of doing them. It would be futile to deny this. It is folly not to take sufficient account of them pedagogically, and I quite agree with what Mr. Phillips says about the usual failure to utilize this spontaneous delight pedagogically. The child is hampered by being made to work in a formal way upon small numbers and counting by ones, when, if left to himself, he would spontaneously occupy himself with larger numbers and count by twos, fours and fives, almost as easily as by ones. This is as mischievous and cramping as it would be to keep the child going through exercises in learning to walk after he has learned. But theoretically it would be equally futile to deny that this spontaneous interest in counting for its own sake was preceded by a somewhat slow and tedious process in which the child was learning to count (just as to walk) through ordering or adjusting things to each other in a succession of acts.

We now come to the next step, both intellectually and pedagogically. The average child who enters school at six or seven is emerging from this counting period. What he now needs is some further use to which his ability to count may be put, in order to gain new power. Otherwise there is arrested development. Nothing has interested me more in Mr. Phillips's article than his statement that numerical precocities and prodigies are connected with a too protracted dwelling in the counting stage. Now, unless some arrest, similar in principle though less in extent, is to occur in every child when he goes to school, some function must be found with reference to which the child may utilize his ability to count. My contention is that the number sense becomes vitalized and truly educative at this point by being largely directed towards the definition of values in the form of measurement. It is referred to things again, but not for the sake of merely counting the things—that is a relapse to an outgrown stage of development and is an error which is responsible for much of the benumbing, cramping grind of our school work. The reference to things is now in the sense of defining magnitude, measuring area, using scales to determine weight, enumerating the value of commodity with reference to money units, etc., etc. Here the power of counting is used as a tool of control and construction and so becomes truly educative.

Now a word, more definitely, as to the relationship of the series idea to the ratio idea. In the first stage, learning to count, there is always somewhat which is counted off. This *somewhat* limits the

process of counting; and in turn the counting definitely marks out the somewhat counted. This "somewhat" may be illustrated by the fingers of the hand, by a pile of sticks or stones or whatever. The moment the child begins to count, this totality presents itself as vaguely quantitative. Through the counting, this vagueness is transformed into relative definiteness. Mr. Phillips says: "It is absurd to think of a savage attempting to measure a given quantity without any concept of number." I should say it was. Number is absolutely essential to the measurement of quantity. It is by counting or enumerating the number of units that we find out how much of a quantity there is. The point is simply that the savage and the child begin with vague concepts of plurality, corresponding to the series, and with an equally vague sense of the totality or unity (quantity) which is split up into this plurality. By the application of one factor to the other *each* is defined. It is absurd to suppose that any one measures without a concept (vague that is) of number; but it is equally absurd to suppose that the savage or the child has a perfectly clear, definite, and ready-made concept of number before he ever counts up any quantity, and then proceeds to measure the quantity or find out how much there is. We begin with an equally vague "many" and an equally vague "much." Each clears the other up through mutual application. It hardly seems consistent in Mr. Phillips to insist so much upon the child's primitive, crude consciousness of plurality in the form of a series, and not to bring out with equal clearness the part played by intensive concepts of degree—little, much, more, less, light, heavy, hotter, colder, etc.,—in the child's experience. It certainly is misleading in the outcome, because it throws the factor of plurality out of perspective and out of its bearings, and hence narrows and distorts the pedagogical province of number.

Of course, one cannot avoid reflecting his own attitudes and prepossessions in any series of questions which may be sent out. But it must equally be borne in mind that the data received in reply to such questions have value just in proportion to the extent in which the questions have covered the whole ground or only a part of it. It is accordingly exceedingly unfortunate, to say the least, that not a *single* one of the questions in the syllabus given by Mr. Phillips have to do with the child's spontaneous experiences and expressions with *reference to questions of quantity and magnitude*. If one cared for one-sided results, I would agree to get up a syllabus bearing on what children say and do regarding questions of more and less, and instinctive comparison of values and amounts, the replies to which would throw into as great relief the quantitative side as Mr. Phillips's data do the strictly numerical side. But this would not be well balanced. The investigation should cover *both* points. I should be very glad if Mr. Phillips would supplement his present inquiry by another along this line; for, till this be undertaken, his present data are necessarily so one-sided as to lend themselves to false interpretations. It would take up, not only such questions as children's spontaneous interest in measurements, but also in formal comparison of amounts. I suggest merely one line which I think would be instructive. Many children in the same family are given to comparing the amount of food given them, particularly when it is a dainty or a luxury. Comparisons of amounts of candy, cake, dessert, and the use of counting to find out who has the most, would, I think, be quite fruitful in showing the way in which the child spontaneously uses number. (This point was suggested to me by Superintendent Ames, of Riverside.)

In the second period, that of counting as spontaneous play, the reference to quantity is, of course, not so obvious. It reappears, however,

in a somewhat subtle form. I am glad to be able to refer again to Mr. Phillips's own data. It is seen in the interest of children in the "last" number — an interest I think which is almost universal. Mr. Phillips refers to the child who wanted to know all the numbers there are, page 241. In general I think it will be found, moreover, that when children are spontaneously counting, they generally set up in advance the amount to which they are going to count up — as a hundred, a thousand, a million, or in extreme cases a child sets out to count clear up to the "last number." Here the magnitude conception recurs as at once setting a limit to and motivating the counting process.

In the third stage the relation between counting and magnitude is so obvious that nothing further need be said. I may say, however, one word more about the ratio idea in itself. The theory and practice of the "Psychology of Number" are that when counting is used by the child to value some amount or other, the ratio idea is *implied* or involved. It need *not*, therefore, be consciously, or explicitly stated. In fact, I should say that for a considerable period it should not be. It is enough that the child gets a sense for the use and application of number for purposes of evaluation, without his consciously formulating the factors involved. Familiarity through use must precede conscious formulation. But our point further is that when number is so used the transition to the conscious ratio idea, whether in the form of ratio proper, or percentage of fractions, is natural, and inevitable. The child is saved that break which is almost uniform in present school practice — and a questionnaire upon this point would be instructive. I mean the break between whole numbers and fractions; and between the four fundamental processes and ratio and percentage. When number is used to value quantity, this idea is practically implied from the outset; and when conditions require, and the child is sufficiently mature, he passes without mental friction to conscious recognition. In closing I wish to say that this is not a mere doctrinaire statement, but that it rests upon continuous experimenting and observation in a school where the child's number sense is developed strictly in connection with construction operation in manual training, cooking, sewing, and science work, where number relations are introduced as instrumental to practical valuations.

In conclusion, the discussion may be thus summarized: A conscious series arises through a process of motor adjustments. This is rhythmical, and the rhythm facilitates at counting by making regular breaks and groupings. The series becomes numerical when its parts are *ordered* with reference to place and value in constituting the whole group. Along with this goes a vague recognition of muchness or magnitude (corresponding to the whole group) which is made definite through counting. Then the power of counting becomes an end in itself; *what is* counted is now simply some total amount or numerical magnitude set as limit. Finally (unless there is to be arrested development), this counting power is reapplied to magnitudes of value in order to measure or define them. This *implies* ratio, which comes to *consciousness* as need demands.

BOOK NOTES.[1]

By G. S. H.

The Foundations of Success. A Plea for Rational Education, by STANLEY DE BRATH. pp. 191. London, George Philip & Son, 1896. 8°.

In this little book Mr. De Brath, who, by the way, is an engineer in the employ of the Uganda Railway, points out what he considers the mistakes of English education, and outlines a system of training which he thinks would meet the present day needs of the country. He does not limit his treatment to any social class, to any age, nor to either sex, but he really has in his mind boys of the middle and well-to-do classes, and schools of the Eton, Harrow, and Rugby type.

As a scientific man the author naturally approaches the subject from the point of view of Herbert Spencer. In his introduction he points out that England's commercial and industrial supremacy in the past has been due in some large measure to a succession of European wars and persecutions which have crippled her most dangerous competitors, and have at the same time driven to her shores some of the best trained industrial leadership of France and the Netherlands. The present serious industrial competition of Germany, and in a less degree of the United States, he claims, is due to the fact that these countries, through a generous public education, conducted on modern lines, have trained up not only a large body of skilled workmen, but, still more important, wise directors of industry.

The body of the book is drawn largely from Spencer and Herbart. It insists on attention to physical conditions, the forming of good physical habits, the special training of the nervous system to secure skill, and attention to the important changing conditions of early adolescence. On the mental side it follows the natural lead of the child's developing interest; sets him at work as directly as possible with realities; balances scientific and humanistic studies; and simplifies and co-ordinates the whole curriculum. There is nothing very new in all this; but, written as it is from the point of view of a man outside the teaching profession, and mainly conversant with the higher class English boy's schools, it has a freshness and suggestion that will interest American readers.

Many of the details of the book are necessarily open to question. Thus, the author says that early peoples, like the Egyptians, care mainly for size in architecture. Then by analogy he reasons that children care mainly for size in their early work with form. Such a statement seems open to two objections: in the first place, the Egyptians were an old people when they built their great temples; and in the second place, a direct study of children, or of undeveloped adults, shows that they are attracted by details and do not easily grasp large wholes. These questionable details will not, however, seriously mislead readers, while the treatment of the stages of growth in children, the recognition of the great importance of sex in childhood and youth, and the very sane and well balanced suggestions concerning this dif-

[1] These notes do not preclude fuller notice later.

ficult subject, will prove helpful to many teachers and parents. Religion is duly recognized as a great factor in education, but it is dealt with from the point of view of modern interpretation, and one wonders a little that a writer who wishes to immediately influence the British public should dare to suggest that the early chapters of Genesis should be treated as an exalted form of myth.

The book closes with an appeal for the establishment of a school to carry out the ideas presented, and it is significant that the writer looks to private enterprise rather than to government aid in carrying out his ideas. One cannot help feeling that Englishmen are curiously unconscious of the fact that their country is in the midst of one of the greatest educational experiments ever undertaken, furnishing almost ideal conditions for the carrying out and realizing of new ideas.

EARL BARNES.

Some Observations of a Foster Parent, by JOHN CHARLES TARVER. Constable & Co., Westminster, 1897. pp. 282.

Brilliant, enthusiastic, a little whimsical, these thirty chapters on educational subjects are also full of sense and as fresh and free from the ear marks of the common pedagogue as anything we have seen for many a month. The first chapter, on the Detestability of Schoolmasters, is rather a plea for a better status for them than a condemnation. Dr. Arnold is so praised because he was simply a kind and common sense man, and stands out by contrast from the common ruck of teachers. The latter are degraded, partly because every ignorant young person who becomes a parent enters a new world, and thinks their new interests are insights they must force home on them as if they were the natural enemies of childhood. Mr. Tarver is impressed with the pathetically little that education can do. Tommy, his *steckpferd*, has little curiosity, many impediments of sense and soul, adds and multiplies fairly well, but sticks at subtraction and division, with bad pronunciation and worse syntax, a victim of experts who know every topic except the chief one, children, with too much rote memory for the development of what is called by courtesy his mind, making blunders enough to base a great new science of ignorance or stupidity, etc. Each of the chief topics of primary and secondary education are treated incisively and suggestively, and Tommy's honesty and health, mind, Universities athletics, Eaton, Clifton, etc., are themes of interesting conversational comment.

Waste and Repair in Modern Life, by ROBSON ROOSE. London, 1897. pp. 364.

An expert in hygiene here reprints twelve papers on wear and tear, rest and repair in London life, the art of prolonging life, clothing as a protection against cold, fasting, cholera, diphtheria, water supply and health resorts, etc. Many men now try to live several lives at once. A lawyer writes stories, is a society leader, etc. To this moral dissipation some anxiety or "fear spread out thin" is added, and often a high pressure man, who has gained much to retire *upon*, has nothing to retire *to*. The golden mean, which is really man's best estate, is despised as vulgar mediocrity. Centenarians are often thought to be faddists, insisting on such popular ideas as that sugar will prolong life, or much washing or bathing, or little of it, a tight belt, or no corsets or lacing, early rising, little and plain food, will do the same, etc. Most, however, are in moderate circumstances and live a common life with no theories. They keep a constant ratio between forces in use and those in reserve, with special care for the latter. A late decadal report in England showed that 400,000 persons were alive who,

had longevity not improved since the preceding decade, would have been dead.

Emlohstobba, von HERMANN LIETZ. Berlin, 1897. pp. 192.

Its sub titles are romance or reality; pictures of school life, past, present or future; and there are 22 full page autotype pictures of kitchen garden, dining hall, aula, a theatre party of boys in white tights representing Cæsar's gladiators, hiving a swarm of bees, cutting down a big tree, the work shop, building a pigeon's house, and a judge's stand on the play ground, at the boat station, building a brick sluice way, digging potatoes, making hay, with a harvest home celebration. This is an idealization of a practice school of the Pedagogical Seminary at Jena, wherein it is sought to embody in a new school state the ideas of Stoy, Dorpfeld, Rein, Willmann, etc., in a way to combine German organization and English freedom and exercise and French style and power of expression. Shakespeare, Goethe, Molière, Emerson, Carlyle, the microscope, telescope, violin, football, axe, spade, pitchfork, football, boxing, are combined ideally, yet in a way that makes the past and present of education seem a dream. The past was a school of instruction, this of education.

Die Entwickelung der Religiosität und das werk der Religion, von ED. REICH. Zurich, 1896. pp. 353.

This first volume is devoted to the evolution of religious sects and the right of religion. The author is a voluminous writer in anthropology and treats, according to his wont, the most varied topics in an interesting way.

La Croyance au Surnaturel, par LOUIS VISMARA. Paris, 1896. pp. 416.

The author traces the history of the supernatural world through the ancient and oriental world, Greece, Rome, Judea and Christianity. When the supernatural is annexed to the natural, heaven and earth will be one.

Esquisse d'une Philosophie de la Religion, par A. SABATIER. 4th ed. Paris, 1897. pp. 443.

Psychology and history teach that religion is a prayer of the heart. It shrouds itself in mystery. Religion is subjected to the law of transformation and will continue to change. Dogma is as needful for the intellect as myth for the heart.

The Buddhist Praying-Wheel, by WM. SIMPSON. London, 1896. pp. 304.

This treats of wheel-symbolism and circular movement in custom and religious ritual. The so-called prayer-wheel is a misnomer, for it expresses praise only. These wheels in Tibet are turned in vast numbers by water, wind, hot air and smoke, and still more by hand, and symbolize heaven, God, perfection, a cycle, etc. Circumambulation of shrines, temples, holy objects and persons, also whirling after the fashion of the dervishes, has a kindred significance. The wheel is often an amulet, it may signify fortune, may be of solar origin, is related to the swastika and to thunder, may be complex or compound, have its own God, etc.

The Social Teaching of Jesus, by SHAILER MATHEWS. The Macmillan Co., 1897. pp. 235.

This essay in Christian sociology is by a professor of New Testament History and Interpretation in the University of Chicago, and treats Christian anthropology, sociology, the family, State, wealth, social

life, the forces of human progress and the process of social regeneration.

Jésus de Nazareth, par A. RÉVILLE. Paris, 1897. Vol. I, pp. 500. Vol. 2, pp. 522.

Professor Réville enters upon this comprehensive critical study of the antecedents of early church history and the life of Jesus with exceptionally long and thorough preparation, and these volumes are not only all that the last, written with knowledge of all that has gone before should be, but are pervaded by new suggestions that are sure to hold the attention of all interested to the end. An obscure and very humble life with three or four years of teaching, not a word written nor an institution founded, a premature and disgraceful death, all records only such words and incidents as stuck in the memories of simple, ignorant men and all in an obscure corner of the world—surely never flowed such a river from a spring of such small surface. The legend of the miraculous birth is the homage rendered to extraordinary sanctity. Redemption by Jesus' death is the mythic form of an experimental fact illustrated by the martyrs who devote their lives to the race. Sin in Adam is bad heredity, and Jesus remains far above all the best exponent of the eternal gospel.

Who Was Jesus Christ? and Other Questions, by F. W. AVELING. London, 1897. pp. 333.

This is a reprint of smaller treatises designed to help Christian Endeavorers, Sunday School workers, and students for the ministry. Is there a God? Can we believe in miracles? If a man die, shall he live again? besides the longer paper giving title to the book. These are treated in a rather liberal, simple and impressive way. Each question is answered in the affirmative, and Christ is argued divine after a presentation of reasons pro and con.

Das Apostolische Symbol. Bd. I, 1894. pp. 410.

This is the first volume of a treatise on apostolic symbols, their origin and original meaning and position in theology and cult, and is devoted to the symbolism of baptism. The treatment is exhaustive and comprehensive, and with all the formulæ in Italy, Africa, Spain, Ireland, according to the different fathers, with a long treatment of the oriental formulæ.

Liturgische Reimofficien des Mittelalters, von C. BLUME. Leipzig, 1897. pp. 291.

This is volume XXIV of the *Analecta hymnica Medii Aevi* and contains several hundred Laton hymnal services in antiphonies, responsions, canticles, vespers, nocturnes, matins, benedictions, invitatoria, etc., well annotated.

The Saints and Missionaries af the Anglo Saxon Era, by D. C. O. ADAMS and T. T. CARTER. London, 1897. pp. 458.

Over sixty persons are briefly characterized, and the authors have happily presented the results of long and careful researches in attractive and popular style. A number of full page illustrations are intended to bring more vividly before the mind the state of religious life in early England.

Christian Belief in the Light of Modern Criticism, by REV. GEO. HENSLOW. London, 1896. pp. 280.

There is in these pages a striking absence of many of the prejudices too often indulged in by the author's clerical brethren. The fall, the curse, salvation, atonement, faith, regeneration, communion, etc., are

pleasantly and suggestively treated from a standpoint somewhat more conservative than that of most American Unitarians.

The Concise Knowledge of Natural History. 530 original illustrations. London, 1897. pp. 771.

This compend is by nine distinguished specialists and the illustrations are mostly original. Mammals, birds, reptiles, amphibia, fish, crustacea, spiders, molusca, etc., down to protozoa, are concisely treated, and it is the best popular encyclopedia of the topic known to the writer.

Nature's Wonder Workers, by KATE R. LOVELL. Cassell & Co., 1886. pp. 272.

This is a collection of short life histories in the insect world, thirty-one in all, well told and with illustrations on nearly every page.

Life Histories of American Insects, by C. M. WEED. Macmillan Co., N. Y., 1897. pp. 272.

The author is a professor in the New Hampshire College of Agriculture, and describes twenty-six species. His book has twenty-one full plate illustrations and many figures in the text.

Wild Neighbors; Out Door Studies in the United States, by ERNEST INGERSOL. Macmillan Co., N. Y., 1897. pp. 301.

This is one of the best of Mr. Ingersol's many good nature books. There are chapters on the gray squirrel, the badger, porcupine, skunk, woodchuck, raccoon, the puma and the coyote, with chapters on the use of tools and animal training, and a couple of dozen illustrations.

Phonics and Reading for the Use of Teachers and of Students, in Normal and High Schools, by C. C. VAN LIEW, Ph. D., and AMELIA F. LUCAS. Bloomington, Ill., 1897. pp. 53.

This booklet, by the Supervisor of the Training Department of the Illinois State Normal University and his assistant, is a concise treatment of the organs of speech, consonants, vowels and diphthongs, diacritical markings, etc., designed to furnish more available scientific cases for the study and teaching of the elementary sounds of the English Language, with the best means and devices for securing a more beautiful oral speech.

Principles of Vocal Expression, being a revision of the Rhetoric of Vocal Expression, by W. B. CHAMBERLAIN, of the Chicago Theological Seminary, together with *Mental Technique and Literary*, by S. H. CLARK, Ph. D., of the University of Chicago. Chicago, 1897. pp. 478.

This book is the outgrowth of practical class-room work and is especially adapted to the second year of the college course. Stress is laid on paraphrasing as a preparation for expression, types of utterance, grouping, discrimination, emotion, volition, criticism, vocal technique, and musical properties of speech. Part II is more practical, with many illustrations of gesture, atmosphere, contrast, etc. A note fails to do justice to perhaps the most carefully belabored attempt to bring order and give academic dignity to rhetoric and elocution yet made.

Standard School Physiology, Hygiene, and Anatomy, by R. B. SMITH, M. D., and EVERETT C. WILLARD. The Morse Co., 1897. pp. 274.

This is an attempt to couple the most essential and useful facts of physiology from standard authors for pupils of academic, high schools and higher grammar grades, and is illustrated by 116 well chosen cuts,

and is provided with a good pronouncing and defining glossary. It will help toward desirable prominence a topic upon which schoolroom work had fallen far behind the state of scientific knowledge.

Deformities of the Fingers and Toes, by WM. ANDERSON, F. R. C. S. London, 1897. pp. 150.

Contractions of the fingers, toes, and congenital deformities of both, constitute the three parts of this interesting work. Most of the cases studied and treated are children.

School Gymnastics, by JESSE H. BANCROFT. Kellogg's Teachers' Library, Vol. IV. pp. 298.

This system of physical exercise for schools has 237 photographic illustrations and is entirely for free hand work without apparatus. Both the children and the attitudes and exercises are attractive, and the whole is divided by years into eight parts by grades.

One Hundred Gymnastic Games. Boston, 1897. pp. 90.

These games are prepared by ten members of the alumni of the Boston Normal School of Gymnastics, and dedicated to the memory of Mrs. Mary Hemenway. They are arranged under the heads: ball games, running games, and miscellaneous and quiet. Basket ball appears with several varieties, but many are good old games of, I spy, hop scotch, hare and hounds, all up, etc. For each, the grade, number of players, purpose and apparatus are given. It is an excellent, convenient, and opportune book.

Self Cultivation in English, by GEORGE HERBERT PALMER, LL. D., Alford Professor of Philosophy, Harvard University. N. Y., Crowell, 1897. pp. 32.

English has four aims: "the mastery of our language as a science, as a history, as a joy and as a tool." This paper treats it as a tool only, and is intended as in some sense an introduction to rhetoric, and is an admirable tractlet in form, style and matter.

Report of the Committee of Twelve on Rural Schools. Chicago, 1897. pp. 228.

This is one of the most valuable documents ever published under the auspices of the National Educational Association. It covers most of the many perplexing problems, and contains well matured, practical suggestions. Its appendices from A to S, which are often of great worth, are by various authors, and a convenient index is appended. (Fuller review will follow.)

The Ethics of Gambling, by W. DOUGLAS MACKENZIE. Chicago, 1897. pp. 67.

This little book, from the press of the Chicago Theological Seminary, discusses the need of a theory of gambling, describes the act, the economic nature and moral quality, tells why gambling weakens character, and leads to suicide, and discusses the elementary chance in commerce and the relation between gambling and national life.

The Personal Equation, by HARRY THURSTON PECK. Harper and Bros., N. Y., 1898. pp. 377.

This book contains twelve essays chiefly on literary and political subjects; but two are educational, The Child and its Picture Books, and The Downward Drift in American Education. The author deprecates the refinements of modern pedagogy. Picture books should be more artistic, there should be a more natural way of looking at childhood. A polytechnic patchwork makes university curricula things of

rags and tatters. No workshops, but only the humanities and liberal arts must be the cry, if men above the commonplace are to be made. No more polymathic plumbers, sordid toilers, hustlers, money makers, baccalaureate laymen, must be turned out of our thinking shops; but graduates must illustrate the majesty of man by doing great things in a large and splendid way.

Schopenhauer's Doctrine of the thing in Itself, and his Attempt to Relate it to the World of Phenomena, by STEPHEN SHELDON COLVIN. Providence, 1897. pp. 74.

This is a thesis for the degree of Ph. D. at the University of Strassburg, and is a piece of careful and valuable work.

The Influence of Woman in the Evolution of the Human Race, by ALPHEUS HYATT. Natural Science, August, 1897.

Professor Hyatt thinks approximation of the sexes means degeneration. The sexes have grown more and more unlike as civilization has developed, till now their convergence means retrogression, and should therefore be avoided. The view is vigorously and impressively presented by one of our ablest biological thinkers.

Ethical System, by WM. WUNDT. Tr. by Margaret Floy Washburn. London, 1897. pp. 196.

This is a translation of a second book of Professor Wundt's Ethik, and forms a concise history of ethics fuller than Sidgwick's Outlines.

Die Normale Körpergrösse der Menschen, von E. v. LANGE. München, 1896. pp. 38.

This pamphlet explains two large wall charts designed for instantaneous measuring of the height of the school children, and for determining at the same time how each is related to the height of the average child at that age. The author has based his maximal, minimal, and average height upon a careful study of the now voluminous literature of the subject. His charts should be in every school. The stature determinations range from birth to the twenty-fifth year.

Ultimum Organum, par J. DE STRADA. Nouvelle édition, 1897. F. Alcan, Paris. 2 Vols. pp. 387; 484.

Civilization is not due to religion, philosophy, climate, race or social organization; but to method, which is the chief expression of "impersonations." Ontological, logical and scientific methods are elaborately described and criticised.

Psychologisches Lesebuch, by U. S. HOFFMANN. Leipzig, 1896. pp. 168.

A collection of 21 articles on as many psycho-pedagogical topics, by nearly as many Herbartian writers.

Modern Mythology, by ANDREW LANG. Longmans, Green and Co., London, 1897. pp. 212.

This is a running criticism on Max Müller's theory of mythology as originating in words of faded metaphors, and a plea for a more psychological and less philological causation. The chief point of attack is Müller's recent contribution to the science of mythology. Man calls lifeless things by names denoting life and sex, because he regards them as persons, says Lang, and does not, as Müller thinks, regard them as persons because he had already given them names connoting sex.

Animal Land, by KATHARINE and SYBIL CORBET. E. P. Dutton & Co., N. Y., 1897.

A girl of four developed very distinct types of impossible animals and invented both names and characteristic acts for each, no less original and as individual as their forms. Her mother drew them, following the child's image of the form, giving each a page with name and what each does. Andrew Lang writes an introduction comparing it as the product of a real genius to Alice in Wonderland and Mr. Lear's works, and conjectures that these creatures are psychologically akin to imaginary companions. Some of them have no body and some no legs. There is, *e. g.*, the melly which "is so surprised and eats toffee;" the dopple that "does everything it is told and eats pumice stone;" the ginniwits "larger than any table and is always there;" the hottle that "stands on its head and enjoys itself;" the stoop that "looks at everything but never touches;" the jimatite that "likes potatoes, grapes, catches crabs, lives by the sea and goes after rats;" the joox so called "because it is not a bear, it growls and eats cabbages and beans;" the burkan "a nasty biting thing and there is no more about it;" the cattaby that "only hops and eats and eats and eats;" the jumma that "likes chocolate and rabbits;" the pokiban "that eats almonds and jumps;" the azorkon; the ding that "is so happy;" the didd that "likes fish and water;" the boddles that "screams and eats candles and soap;" the jappa; womp; the modd; the booba; the beppy that "likes lions and bread and milk;" the sleem; the jinkatee; the kank; the penna; the weedle that "has such dainty little ways of pulling up potatoes;" the rikka; toop; pollyannser that "loves frame food;" the beeda; jactusturdus; the wuss and junn.

Harvard Episodes, by CHARLES MACOMB FLANDRAU. Boston, 1897. pp. 339.

These seven sketches depict undergraduate life at Harvard from a social point of view. Each story has a climax which is led up to with much skill, and the conversation and characterizations of Wolcott the Magnificent, Wellington, Haydock, Prescott, Hewitt, Endicott, Davis, McGaw, Jack and Betty the butterflies, Marcus Thorn the tutor, Beverly, and some others, suggest real persons, incidents and sentiments of college life as it is lived out by gilded young men to whom the professors and curriculum are very inconspicuous incidents amidst many other more absorbing interests. The struggle of deserving young men for social recognition; the brutal athlete and bully, attractive despite his faults by reason of a suggestion of better qualities that may later get control of him; the stupid ignoramus, who is, nevertheless, a fine fellow and a thorough gentleman; the callow, roistering young cub, precociously depraved, yet who it would seem might be so easily reclaimed; the thoroughly sensible senior, who is mentor and almost oracle to a few underclass men, because he knows college life; these and others such as they; their sayings and doings in term time and vacation, at clubs and in their rooms; drunk and sober; cramming hard and absolutely idle; just entering the quadrennial career and looking back on its unreality from the greater wisdom of a few years out, are well depicted in a way full of interest to the psychologist of later adolescence, the student of education and to the moralist, and all in a style of marked literary promise.